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NOTE

DATA REPORTED BY THE DEPARTMENT OF FISHERIES AND OCEANS FOR THE YEAR 1987-88 WERE APPARENTLY PREPARED ON A SLIGHTLY DIFFERENT REPORTING BASIS FROM PREVIOUS YEARS.

HISTORICAL REVISIONS WILL BE PREPARED IF REVISED DATA ARE RECEIVED.

FEDERAL SCIENCE EXPENDITURES

AND PERSONNEL

1987/88

March 1987

Science, Technology and Capital
Stock Division
Statistics Canada

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PREFACE

Each spring the Federal Government Main Estimates are tabled in the House of Commons. The Main Estimates give an overview of the broad spending programs of departments and agencies. Scientific expenditures are provided for, but may not be separately displayed in published departmental estimates. These statistical tabulations fill that gap.

To assist readers to obtain an overall appreciation of federal scientific expenditures, these tabulations present science statistics assembled during the complicated process which culminated in the tabling of Main Estimates 1987/88. The government's support of science provided through other means, e.g. through tax incentives, is not included in these statistics.

Many people from many departments and agencies contributed in the preparation of this statistical report, and in particular, the Financial Officers of departments, on whom fell the onus for providing details of both the historical and the planned science expenditures which this report lists. The Treasury Board Secretariat made it possible for these statistics to be obtained in conjunction with the budgetary machinery, by incorporating as addenda to the Main Estimates submissions the collection of federal science statistics conducted by Statistics Canada.

These statistical tabulations were prepared under the direction of:

- Bert Plaus, Project Leader, Public Sector
- Janet Thompson, Senior Statistical Officer, Public Sector
- Andrew Frank Konecny, Computer Systems Manager
- Mary-Lynne Redmond, Technical Officer

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TABLES OF SCIENTIFIC EXPENDITURES AND RESOURCES

SUBJECT	Science Type: Total		Natural		Human	
	Table	Page	Table	Page	Table	Page
S&T Totals						
summary:						
- by department and science type	1	17	(-)		(-)	
- by performer	2	20	27	75	52	117
- by activity and performer	3	21	28	76	53	118
by department:						
- intramural/extramural	4	24	29	79	54	121
by R&D and RSA activity:						
- intramural	5	27	30	81	55	123
- industry	6	30	31	83	56	125
- university	7	32	32	85	57	127
- non-profit institutions	8	34	33	87	58	129
- provincial and municipal governments	9	36	34	88	59	130
- foreign	10	37	35	89	60	131
- other	11	39	36	90	61	132
- total	12	41	37	91	62	133
R&D Totals						
summary:						
- by performer	13	44	38	93	63	135
by department:						
- intramural/extramural	14	45	39	94	64	136
by payment type:						
- intramural	15	47	40	96	65	138
- industry	16	49	41	98	66	140
- university	17	51	42	99	67	141
- non-profit institutions	18	53	43	101	68	142
- provincial and municipal governments	19	55	44	102	69	143
- foreign	20	56	45	103	70	144
- other	21	57	46	104	71	145
- total	22	59	47	105	72	146

RSA Totals						
summary:						
- by performer	23	61	48	107	73	148
by department:						
- intramural/extramural	24	62	49	108	74	149
S&T Personnel						
summary:						
- by category and activity	25	65	50	110	75	151
by department:						
- by category	26	66	51	111	76	152
Expenditures by Envelope						
summary:						
- by R&D and RSA activity	77	158		(-)		(-)
- by performer	78	161		(-)		(-)
by department:						
- by science type	79	163		(-)		(-)
- by R&D and RSA activity	80	166	81	169	83	176
S&T personnel by Envelope:						
- by category and activity		(-)	82	171	84	178

NOTES TO READERS

The data in these statistical tabulations are based on program budgetary expenditures presented to Parliament for approval in the 1987/88 Main Estimates. The tables display both the expenditures and the personnel resources applied to activities in the natural and human sciences. This report is a statistical companion to Statistics Canada's more descriptive report soon to be published; Federal Science Activities 1987/88.

As the data are designed primarily for use by those with some knowledge of the government's scientific activities, a minimum of explanatory material accompanies the statistics.

This report is organized into four main sections and an appendix. The first section presents combined data on the natural and human sciences, the second data on the natural sciences alone and the third data on the human sciences alone. The fourth section presents expenditure data corresponding with the cabinet policy and expenditure committees within which the various departments and agencies are grouped. The appendix contains definitions of terms used in the categorization of science expenditures and personnel, and some notes on limitations of the data surveys. Readers are urged to read this appendix before drawing their own conclusions from the data.

The data used for these statistical tabulations are derived from the 1987/88 Main Estimates survey of expenditures and personnel resources in the natural and human sciences, which covers the fiscal years 1985/86, 1986/87 and 1987/88. The data, therefore, include the actual expenditures recorded in the base year 1985/86, those forecast for the current year 1986/87 and those for which funding authority is requested in estimates for the new fiscal year 1987/88. Non-program ("indirect") costs, such as the value of services provided by other departments without charge and accommodation provided by the reporting program are included.

Personnel categories are measured in full-time equivalents, that is, the number of person-years cumulatively devoted to scientific activities by the employees engaged in these activities, whether on a continuing, term, casual or seasonal basis. The 1985/86 data are the actual totals of the person years used in that period, while the 1986/87 and 1987/88 data are authorized total person-years indicated in the Main Estimates.

Additional sub-divisions or rearrangements of the data totals presented in this report are often available on request to the Science, Technology and Capital Stock Division (613-990-9919).

The department and program abbreviations used are explained in the following pages.

DEPARTMENT/PROGRAM NAMES AND ABBREVIATIONS

AGRICULTURE - AGR

AGR-ADM	Administration
AGR-FOR	Canadian Forestry Service
AGR-CGC	Canadian Grains Commission
AGR-DEV	Food Development Program
AGR-RI	Food Regulation and Inspection
AGR-GO	Grains and Oilseeds

ATOMIC ENERGY CONTROL BOARD - AECB

ATOMIC ENERGY OF CANADA LIMITED - AECL

CANADA COUNCIL - CC

CANADA MORTGAGE & HOUSING CORPORATION - CMHC

CANADIAN BROADCASTING CORPORATION - CBC

CANADIAN HUMAN RIGHTS COMMISSION - CHRC

CANADIAN INTERNATIONAL DEVELOPMENT AGENCY - CIDA

CANADIAN LIVESTOCK FEED BOARD - CLFB

CANADIAN RADIO-TELEVISION & TELECOMMUNICATIONS COMMISSION - CRTC

CANADIAN TRANSPORT COMMISSION - CTC

COMMISSIONER OF OFFICIAL LANGUAGES - COL

COMMUNICATIONS - COMM

COMM-CC	Communications and Culture

CONSUMER AND CORPORATE AFFAIRS - CCA

CCA-ADM	Administration
CCA-CON	Consumer Affairs
CCA-COR	Corporate Affairs

ECONOMIC COUNCIL OF CANADA - ECC

EMPLOYMENT & IMMIGRATION - E&I

E&I-ADM	Administration
E&I-CEIC	Canada Employment and Immigration Commission

ENERGY, MINES AND RESOURCES - EMR

EMR-ENER	Energy
EMR-MES	Minerals and Earth Sciences

ENVIRONMENT - ENV

ENV-ADM	Administration
ENV-AES	Atmospheric Environment Services
ENV-C&P	Conservation and Protection Services
ENV-PC	Parks Canada

EXTERNAL AFFAIRS - EA
EA-CIA Canadian Interests Abroad

FINANCE - FIN
FIN-FEP Financial and Economic Policies

FISHERIES & OCEANS - F&O
F&O-FM Fisheries and Marine Services

INDIAN AFFAIRS & NORTHERN DEVELOPMENT - IAND
IAND-NA Northern Affairs

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE - IDRC

INTERNATIONAL JOINT COMMISSION - IJC

JUSTICE - JUST
JUST-ADM Administration
JUST-LRC Law Reform Commission

LABOUR - LAB

MEDICAL RESEARCH COUNCIL - MRC

NATIONAL CAPITAL COMMISSION - NCC

NATIONAL DEFENCE - NDEF
NDEF-SER Services

NATIONAL ENERGY BOARD - NEB

NATIONAL FILM BOARD - NFB

NATIONAL HEALTH AND WELFARE - NHW
NHW-ADM Administration
NHW-HP Health Protection
NHW-HSS Health Services and Promotion
NHW-IS Income Security
NHW-MS Medical Services
NHW-SS Social Services

NATIONAL LIBRARY CANADA - NLC

NATIONAL MUSEUMS CANADA - NMC

NATIONAL RESEARCH COUNCIL - NRC
NRC-SIR Scientific and Industrial Research
NRC-STI Scientific and Technical Information

NATIONAL REVENUE - NREV
NREV-TAX Taxation

NATURAL SCIENCES & ENGINEERING RESEARCH COUNCIL - NSERC

PRIVY COUNCIL OFFICE - PCO

PUBLIC ARCHIVES - PA

PUBLIC WORKS - PW
PW-PTS Professional and Technical Services

REGIONAL INDUSTRIAL EXPANSION - RIE

ROYAL CANADIAN MOUNTED POLICE - RCMP

SCIENCE AND TECHNOLOGY - ST

SCIENCE COUNCIL OF CANADA - SC

SECRETARY OF STATE - SECS
SECS-ADM Administration
SECS-CIT Citizenship
SECS-ES Education Support
SECS-OL Official Languages

SOCIAL SCIENCES & HUMANITIES RESEARCH COUNCIL - SSHRC

SOLICITOR GENERAL - SGEN
SGEN-ADM Administration

STATISTICS CANADA - STCAN

SUPPLY AND SERVICES - SS
SS-SUPP Supply

TRANSPORT - TPT
TPT-ADM Administration
TPT-AIR Air Transportation
TPT-MAR Marine Transportation
TPT-SUR Surface Transportation

TREASURY BOARD - TB
TB-ADM Administration

TABLE 1

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND SCIENCE TYPE, 1985-86 TO 1987-88

		YEAR								
		1985-86			1986-87			1987-88		
		SCIENCE TYPE			SCIENCE TYPE			SCIENCE TYPE		
		NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-ADM	6643	.	6643	6593	.	6593	6802	.	6802
	AGR-FOR	77003	.	77003	84107	.	84107	79667	.	79667
	AGR-CGC	6222	.	6222	7515	.	7515	7840	.	7840
	AGR-DEV	282779	3432	286211	275529	3039	278568	271015	3085	274100
	AGR-RI	27383	.	27383	24299	.	24299	22265	.	22265
	AGR-GO	1788	.	1788	.	.	.	.	.	.
	TOTAL	401817	3432	405249	398042	3039	401082	387590	3085	390675
AECB	AECB	2727	.	2727	3960	.	3960	4145	.	4145
AECL	AECL	140092	.	140092	155332	.	155332	141886	.	141886
CC	CC	.	272	272	.	283	283	.	294	294
CMHC	CMHC	3711	15743	19454	4145	18242	22387	4165	18701	22866
CBC	CBC	.	5365	5365	.	4795	4795	.	4795	4795
CHRC	CHRC	.	475	475	.	547	547	.	653	653
CIDA	CIDA	45231	6903	52134	48316	6733	55049	62793	7749	70542
CLFB	CLFB	.	177	177	.	147	147	.	156	156
CRTC	CRTC	.	11	11	.	10	10	.	.	.
CTC	CTC	.	3647	3647	.	3523	3523	.	3528	3528
COL	COL	.	3215	3215	.	3296	3296	.	3332	3332
COMM	COMM-CC	76247	1555	77801	64687	1226	65913	49379	1291	50670
CCA	CCA-ADM	.	3278	3278	.	3480	3480	.	3407	3407
	CCA-CON	.	3347	3347	.	3532	3532	.	4128	4128
	CCA-COR	13770	.	13770	14097	.	14097	16618	.	16618
	TOTAL	13770	6626	20396	14097	7012	21109	16618	7535	24153
ECC	ECC	.	9395	9395	.	9605	9605	.	10048	10048
E&I	E&I-ADM	.	19966	19966	.	16740	16740	.	17315	17315
	E&I-CEIC	.	6875	6875	.	7974	7974	.	7763	7763
	TOTAL	.	26840	26840	.	24714	24714	.	25078	25078
EMR	EMR-ENER	53771	.	53771	41315	.	41315	44445	.	44445
	EMR-MES	313417	20731	334148	318554	31851	350405	319580	34841	354422
	TOTAL	367189	20731	387920	359869	31851	391720	364025	34841	398867
ENV	ENV-ADM	1074	123	1197	1263	120	1383	1319	210	1529
	ENV-AES	228639	.	228639	260936	.	260936	262393	.	262393
	ENV-C&P	96443	6571	103014	100811	6873	107684	106666	7164	113831
	ENV-PC	7044	7804	14849	7338	8134	15472	7597	8319	15916
	TOTAL	333200	14498	347699	370349	15127	385476	377975	15693	393668
EA	EA-CIA	.	11838	11838	.	12872	12872	.	13507	13507
FIN	FIN-FEP	.	16590	16590	.	18745	18745	.	20711	20711
F&O	F&O-FM	249401	8148	257549	226262	7390	233652	197774	7623	205397
IAND	IAND-NA	4388	805	5194	4721	806	5527	4124	738	4862

(CONTINUED)

TABLE 1

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND SCIENCE TYPE, 1985-86 TO 1987-88

		YEAR								
		1985-86			1986-87			1987-88		
		SCIENCE TYPE			SCIENCE TYPE			SCIENCE TYPE		
		NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
IDRC	IDRC	40000	41799	81799	44695	46705	91400	47726	49874	97600
IJC	IJC	3330	.	3330	3657	.	3657	3886	.	3886
JUST	JUST-ADM	.	4367	4367	.	5899	5899	.	4450	4450
	JUST-LRC	.	2995	2995	.	3055	3055	.	3109	3109
	TOTAL	.	7361	7361	.	8954	8954	.	7559	7559
LAB	LAB	.	6851	6851	.	4404	4404	.	4572	4572
MRC	MRC	161602	.	161602	168278	.	168278	172055	.	172055
NCC	NCC	514	481	995	554	498	1052	550	529	1079
NDEF	NDEF-SER	210730	3438	214168	220034	3470	223504	243098	3582	246680
NEB	NEB	367	1902	2269	397	2073	2469	407	2366	2773
NFB	NFB	1219	.	1219	1123	.	1123	1150	.	1150
NHW	NHW-ADM	.	11056	11056	.	13087	13087	.	12415	12415
	NHW-HP	70378	.	70378	74088	.	74088	82224	.	82224
	NHW-HSS	11562	9536	21098	13458	10593	24051	13673	10828	24501
	NHW-IS	.	1247	1247	.	1730	1730	.	1536	1536
	NHW-MS	2369	1418	3787	2568	1500	4068	2546	1500	4046
	NHW-SS	.	7176	7176	.	7132	7132	.	7310	7310
	TOTAL	84309	30433	114742	90114	34042	124156	98443	33589	132032
NLC	NLC	.	42050	42050	.	44533	44533	.	44814	44814
NMC	NMC	35529	61301	96830	38429	72101	110530	42507	85701	128208
NRC	NRC-SIR	397069	.	397069	464546	.	464546	449380	.	449380
	NRC-STI	26842	.	26842	.	.	.	.	.	.
	TOTAL	423910	.	423910	464546	.	464546	449380	.	449380
NREV	NREV-TAX	.	2959	2959	.	2815	2815	.	3084	3084
NSERC	NSERC	311302	.	311302	320740	.	320740	331687	.	331687
PCO	PCO	.	70	70	.	90	90	.	90	90
PA	PA	.	20594	20594	.	23498	23498	.	19200	19200
PW	PW-PTS	4884	.	4884	6280	.	6280	6261	.	6261
RIE	RIE	199217	3593	202810	217024	3992	221016	226119	4146	230265
RCMP	RCMP	611	.	611	700	.	700	705	.	705
ST	ST	4791	8384	13175	8485	12787	21272	15894	12408	28302
SC	SC	.	4637	4637	.	3057	3057	.	3014	3014
SECS	SECS-ADM	.	550	550	.	952	952	.	941	941
	SECS-CIT	.	3001	3001	.	2980	2980	.	2857	2857
	SECS-ES	6103	2082	8185	4685	1308	5993	.	324	324
	SECS-OL	.	2400	2400	.	2433	2433	.	2594	2594
	TOTAL	6103	8032	14135	4685	7673	12358	.	6716	6716
SSHRC	SSHRC	.	63663	63663	.	70638	70638	.	68738	68738
SGEN	SGEN-ADM	.	13915	13915	.	13764	13764	.	14083	14083

(CONTINUED)

TABLE 1

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND SCIENCE TYPE, 1985-86 TO 1987-88

		YEAR								
		1985-86			1986-87			1987-88		
		SCIENCE TYPE			SCIENCE TYPE			SCIENCE TYPE		
		NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
STCAN	STCAN	.	262666	262666	.	349845	349845	.	272333	272333
SS	SS-SUPP	14985	204	15189	13872	324	14196	12898	306	13204
TPT	TPT-ADM	23183	152	23335	23635	162	23797	23735	165	23900
	TPT-AIR	4746	.	4746	5050	.	5050	5837	.	5837
	TPT-MAR	7394	.	7394	8354	.	8394	8925	.	8925
	TPT-SUR	1153	793	1946	1182	745	1927	1218	756	1974
	TOTAL	36476	945	37421	38261	907	39168	37715	921	38636
TB	TB-ADM	.	21493	21493	.	20963	20963	.	22075	22075
TOTAL	TOTAL	3177652	763037	3940689	3291656	857095	4188751	3300956	839056	4140013

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND ACTIVITY TOTAL

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	2555277	65	2749804	66	2659099	64
CANADIAN INDUSTRY	559027	14	566809	14	587191	14
CANADIAN UNIVERSITY	591593	15	611460	15	614021	15
CANADIAN N P INST	34169	1	37946	1	38598	1
PROV. & MUN. GOV T	33681	1	46925	1	56389	1
FOREIGN PERFORMERS	128895	3	134124	3	141039	3
OTHER PERFORMERS	38047	1	41683	1	43676	1
TOTAL	3940689	100	4188751	100	4140013	100

TABLE 3

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ACTIVITY AND PERFORMER, 1985-86

SCIENCE TYPE TOTAL AND YEAR 1985-86

	PERFORMER							
	INTRAMURAL	CANADIAN INDUSTRY	CANADIAN UNIVERSITY	CANADIAN N P INST	PROV. & MUN. GOV'T	FOREIGN PERFORMERS	OTHER PERFORMERS	TOTAL
	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ACTIVITIES								
IN-HOUSE R&D	953541	.	.	.	.	.	.	953541
R&D CONTRACTS	1857	187757	29579	2992	1396	9166	13143	244900
SUPPORTING CONTRACTS	65929	.	.	.	.	.	.	65929
R&D GRANTS	.	275973	469897	15247	9613	85311	9895	866936
RESEARCH FELLOWSHIPS	3671	3188	29522	.	10	11535	748	42674
ADMIN. EXTRAMURAL R&D	92755	.	.	.	.	.	.	92755
CAPITAL - R&D	259410	.	.	.	.	.	.	259410
SUB TOTAL R&D	1377170	467918	521998	18239	11019	106012	23786	2526142
DATA COLLECTION	586489	28023	6745	3387	5400	3447	5608	639099
INFORMATION SERVICES	263270	3637	4451	4937	238	6078	1497	284108
ECONOMIC & FEAS. STUDIES	32468	1270	318	1500	39	1187	172	36954
OPERN'S & POLICY STUDIES	83596	4951	631	4225	7700	20	238	101361
TESTING & STANDARDIZATION	42228	1902	294	331	180	17	559	45511
FEASIBILITY STUDIES	7939	48378	958	53	1169	2519	1045	62061
EDUCATIONAL SUPPORT	2605	2125	55000	75	75	9615	979	70474
MUSEUM SERVICES	65831	823	1198	1422	7861	.	4163	81298
ADMIN. EXTRAMURAL RSA	23875	.	.	.	.	.	.	23875
CAPITAL - RSA	69806	.	.	.	.	.	.	69806
SUB TOTAL RSA	1178107	91109	69595	15930	22662	22883	14251	1414547
TOTAL	2555277	559027	591593	34169	33681	128895	38047	3940689

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ACTIVITY AND PERFORMER, 1986-87

SCIENCE TYPE TOTAL
AND YEAR 1986-87

	PERFORMER							
	INTRAMURAL	CANADIAN INDUSTRY	CANADIAN UNIVERSITY	CANADIAN N P INST	PROV. & MUN. GOV'T	FOREIGN PERFORMERS	OTHER PERFORMERS	TOTAL
	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ACTIVITIES								
IN-HOUSE R&D	1037037	.	.	.	.	.	.	1037037
R&D CONTRACTS	1858	186413	28529	2680	1420	6562	13736	241198
SUPPORTING CONTRACTS	63702	.	.	.	.	.	.	63702
R&D GRANTS	.	276103	480328	18954	13502	89605	10401	888893
RESEARCH FELLOWSHIPS	4024	4141	28706	.	26	12528	827	50252
ADMIN. EXTRAMURAL R&D	102154	.	.	.	.	.	.	102154
CAPITAL - R&D	205590	.	.	.	.	.	.	205590
SUB TOTAL R&D	1414365	466657	537563	21634	14948	108695	24964	2588826
DATA COLLECTION	707653	27899	6789	3697	6327	3863	5937	762165
INFORMATION SERVICES	278051	3818	5347	4537	130	7327	2520	301730
ECONOMIC & FEAS. STUDIES	31656	911	261	1555	147	1326	293	36149
OPERN'S & POLICY STUDIES	89709	3823	591	4315	15141	.	310	113889
TESTING & STANDARDIZATION	46130	3261	390	331	178	10	183	50483
FEASIBILITY STUDIES	8370	57650	1136	196	1229	2574	2304	73461
EDUCATIONAL SUPPORT	2711	1887	58044	110	100	10329	996	74177
MUSEUM SERVICES	75312	903	1337	1571	8725	.	4176	92024
ADMIN. EXTRAMURAL RSA	25318	.	.	.	.	.	.	25318
CAPITAL - RSA	70530	.	.	.	.	.	.	70530
SUB TOTAL RSA	1335439	100152	73897	16312	31977	25425	16719	1599925
TOTAL	2749804	566809	611460	37946	46925	134124	41683	4188751

TABLE 3

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ACTIVITY AND PERFORMER, 1987-88

SCIENCE TYPE TOTAL
AND YEAR 1987-88

	PERFORMER							
	INTRAMURAL	CANADIAN INDUSTRY	CANADIAN UNIVERSITY	CANADIAN N P INST	PROV. & MUN. GOV'T	FOREIGN PERFORMERS	OTHER PERFORMERS	TOTAL
	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ACTIVITIES								
IN-HOUSE R&D	1030279	.	.	.	.	.	.	1030279
R&D CONTRACTS	1966	193817	25780	2152	1371	8661	14311	248058
SUPPORTING CONTRACTS	63799	.	.	.	.	.	.	63799
R&D GRANTS	.	279551	483663	18645	18885	93315	11093	905152
RESEARCH FELLOWSHIPS	3490	4399	29947	1500	32	13160	819	53347
ADMIN. EXTRAMURAL R&D	105443	.	.	.	.	.	.	105443
CAPITAL - R&D	174269	.	.	.	.	.	.	174269
SUB TOTAL R&D	1379245	477767	539390	22297	20288	115136	26223	2580346
DATA COLLECTION	616887	28796	6932	3634	5946	4101	6112	672408
INFORMATION SERVICES	286903	4120	4716	4334	151	6857	2625	309706
ECONOMIC & FEAS. STUDIES	34361	1282	198	1602	174	1416	240	39273
OPERN'S & POLICY STUDIES	93592	2677	567	4287	15188	.	264	116575
TESTING & STANDARDIZATION	48673	2627	402	246	153	10	747	52858
FEASIBILITY STUDIES	7642	66854	846	235	4000	3365	2468	85410
EDUCATIONAL SUPPORT	2658	2005	59371	100	100	10154	454	74842
MUSEUM SERVICES	82139	1063	1599	1863	10389	.	4543	101596
ADMIN. EXTRAMURAL RSA	26166	.	.	.	.	.	.	26166
CAPITAL - RSA	80832	.	.	.	.	.	.	80832
SUB TOTAL RSA	1279854	109424	74631	16301	36101	25903	17453	1559667
TOTAL	2659099	587191	614021	38598	56389	141039	43676	4140013

TABLE 4

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND ACTIVITY TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-ADM	6643	.	6643	6593	.	6593	6802	.	6802
	AGR-FOR	64351	12652	77003	71283	12924	84107	69385	10282	79667
	AGR-CGC	6219	3	6222	7510	5	7515	7835	5	7840
	AGR-DEV	273421	12790	286211	266780	11788	278568	263995	10105	274100
	AGR-RI	27247	136	27383	24085	214	24299	22115	150	22265
	AGR-GO	67	1721	1788	.	.	.	.	.	.
	TOTAL	377947	27302	405249	376251	24831	401082	370133	20542	390675
AECB	AECB	783	1944	2727	860	3100	3960	902	3243	4145
AECL	AECL	125750	14342	140092	133445	21887	155332	124961	16925	141886
CC	CC	260	12	272	270	13	283	281	13	294
CMHC	CMHC	13034	6420	19454	14091	8295	22387	14171	8695	22866
CBC	CBC	2254	3111	5365	1675	3120	4795	1367	3428	4795
CHRC	CHRC	419	56	475	472	75	547	553	100	653
CIDA	CIDA	4365	47769	52134	4238	50811	55049	4674	65868	70542
CLFB	CLFB	132	45	177	127	20	147	136	20	156
CRTC	CRTC	.	11	11	.	10	10	.	.	.
CTC	CTC	3647	.	3647	3523	.	3523	3528	.	3528
COL	COL	3215	.	3215	3296	.	3296	3332	.	3332
COMM	COMM-CC	44603	33198	77801	39032	26881	65913	38031	12639	50670
CCA	CCA-ADM	2481	797	3278	2553	927	3480	2487	920	3407
	CCA-CON	3347	.	3347	3532	.	3532	4128	.	4128
	CCA-COR	13770	.	13770	14097	.	14097	16618	.	16618
	TOTAL	19599	797	20396	20182	927	21109	23233	920	24153
ECC	ECC	9086	309	9395	9265	340	9605	9708	340	10048
E&I	E&I-ADM	18691	1275	19966	16483	257	16740	17050	265	17315
	E&I-CEIC	6436	439	6875	7319	655	7974	7312	451	7763
	TOTAL	25126	1714	26840	23802	912	24714	24362	716	25078
EMR	EMR-ENER	4315	49456	53771	4097	37218	41315	4211	40234	44445
	EMR-MES	282660	51488	334148	283998	66407	350405	285436	68986	354422
	TOTAL	286976	100944	387920	288095	103625	391720	289647	109220	398867
ENV	ENV-ADM	675	522	1197	841	542	1383	869	660	1529
	ENV-AES	220667	7972	228639	252470	8466	260936	253502	8891	262393
	ENV-C&P	90400	12614	103014	93805	13879	107684	99375	14456	113831
	ENV-PC	13198	1651	14849	13755	1717	15472	14130	1786	15916
	TOTAL	324940	22759	347699	360872	24604	385476	367875	25793	393668
EA	EA-CIA	8387	3451	11838	8943	3929	12872	9257	4250	13507
FIN	FIN-FEP	16590	.	16590	18745	.	18745	20711	.	20711
F&O	F&O-FM	238125	19424	257549	214994	18658	233652	189013	16384	205397

(CONTINUED)

TABLE 4

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL AND ACTIVITY TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
IAND	IAND-NA	1844	3350	5194	2089	3438	5527	1842	3020	4862
IDRC	IDRC	25964	55835	81799	29013	62387	91400	30982	66618	97600
IJC	IJC	3232	98	3330	3530	127	3657	3766	120	3886
JUST	JUST-ADM	2033	2334	4367	1845	4054	5899	1831	2619	4450
	JUST-LRC	1077	1918	2995	1177	1878	3055	1190	1919	3109
	TOTAL	3109	4252	7361	3022	5932	8954	3021	4538	7559
LAB	LAB	5644	1207	6851	4119	285	4404	4350	222	4572
MRC	MRC	3902	157700	161602	4039	164239	168278	4182	167873	172055
NCC	NCC	686	309	995	838	214	1052	859	220	1079
NDEF	NDEF-SER	126906	87262	214168	137807	85697	223504	138675	108005	246680
NEB	NEB	2269	.	2269	2469	.	2469	2773	.	2773
NFB	NFB	1219	.	1219	1123	.	1123	1150	.	1150
NHW	NHW-ADM	9032	2024	11056	10983	2104	13087	10861	1554	12415
	NHW-HP	67693	2685	70378	71445	2643	74088	79573	2651	82224
	NHW-HSS	1584	19514	21098	1702	22349	24051	2142	22359	24501
	NHW-IS	1200	47	1247	1455	275	1730	1536	.	1536
	NHW-MS	2369	1418	3787	2568	1500	4068	2546	1500	4046
	NHW-SS	788	6388	7176	766	6366	7132	824	6486	7310
	TOTAL	82566	32076	114742	88919	35237	124156	97482	34550	132032
NLC	NLC	42012	38	42050	44472	61	44533	44749	65	44814
NMC	NMC	81013	15817	96830	93424	17106	110530	108275	19933	128208
NRC	NRC-SIR	250235	146774	397069	319069	145477	464546	308262	141118	449380
	NRC-STI	26764	78	26842	.	.	.	.	.	.
	TOTAL	277058	146852	423910	319069	145477	464546	308262	141118	449380
NREV	NREV-TAX	2959	.	2959	2915	.	2815	3084	.	3084
NSERC	NSERC	12326	298976	311302	13990	306750	320740	12949	318738	331687
PCO	PCO	.	70	70	.	90	90	.	90	90
PA	PA	20594	.	20594	23499	.	23498	19200	.	19200
PW	PW-PTS	2685	2199	4884	2655	3625	6280	2701	3560	6261
RIE	RIE	27047	175763	202810	31218	189798	221016	32935	197330	230265
RCMP	RCMP	95	516	611	133	567	700	245	460	705
ST	ST	9557	3518	13175	13792	7480	21272	13498	14804	28302
SC	SC	4308	329	4637	2730	327	3057	2679	335	3014
SECS	SECS-ADM	456	94	550	774	178	952	763	178	941
	SECS-CIT	630	2371	3001	491	2489	2980	515	2342	2857
	SECS-ES	262	7923	8185	276	5717	5993	324	.	324
	SECS-OL	2030	370	2400	2046	387	2433	2182	412	2594
	TOTAL	3377	10758	14135	3587	8771	12358	3784	2932	6716

(CONTINUED)

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND ACTIVITY TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SSHRC	SSHRC	5429	57234	63663	6214	64424	70638	6459	62279	68738
SGEN	SGEN-ADM	5013	8902	13915	4969	8795	13764	5288	8795	14083
STCAN	STCAN	262572	94	262666	349747	98	349845	272285	48	272333
SS	SS-SUPP	189	15000	15189	196	14000	14196	204	13000	13204
TPT	TPT-ADM	5896	17439	23335	5809	17988	23797	5828	18072	23900
	TPT-AIR	3940	806	4746	4222	828	5050	4411	1426	5837
	TPT-MAR	3523	3871	7394	6732	1662	8394	4775	2150	6925
	TPT-SUR	566	1380	1946	580	1347	1927	610	1364	1974
	TOTAL	13925	23496	37421	17343	21825	39168	15624	23012	38636
TB	TB-ADM	21340	153	21493	20805	158	20963	21922	153	22075
TOTAL	TOTAL	2555277	1385412	3940689	2749804	1438947	4188751	2659099	1480914	4140013

TABLE 5

FEDERAL INTRAMURAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
R&D PERFORMER INTRAMURAL

		·EAP								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-ADM	.	6643	6643	.	6593	6593	.	6802	6802
	AGR-FOR	57004	7347	64351	62589	8694	71283	61910	7475	69385
	AGR-CGC	3076	3143	6219	3958	3552	7510	3896	3938	7835
	AGR-DEV	267400	6021	27342'	261158	5623	256780	258502	5493	263995
	AGR-RI	14376	12871	27247	13122	10963	24085	9420	12695	22115
	AGR-GC	67	.	67	.	.	.	.	.	.
	TOTAL	341923	36024	377947	340827	35424	376251	333729	36404	370133
AECB	AECB	770	13	783	840	20	860	881	21	902
AECL	AECL	117404	8346	125750	124318	9127	133445	115611	9350	124961
CC	CC	123	137	260	128	142	270	133	148	281
CMHC	CMHC	4947	8087	13034	5282	8809	14091	5324	8847	14171
CBC	CBC	.	2254	2254	.	1675	1675	.	1367	1367
CHRC	CHRC	.	419	419	.	472	472	.	553	553
CIDA	CIDA	731	3635	4365	814	3424	4238	899	3775	4674
CLFB	CLFB	103	29	132	98	29	127	109	27	136
CTC	CTC	1925	1721	3647	1817	1706	3523	1820	1708	3528
COL	COL	.	3215	3215	.	3296	3296	.	3332	3332
COMM	COMM-CC	37207	7396	44603	32984	6048	39032	31989	6042	38031
CCA	CCA-ADM	1925	556	2481	2050	504	2553	1963	524	2487
	CCA-CON	.	3347	3347	.	3532	3532	.	4128	4128
	CCA-COR	.	13770	13770	.	14097	14097	.	16618	16618
	TOTAL	1925	17674	19599	2050	18132	20182	1963	21270	23233
ECC	ECC	7709	1377	9086	7776	1489	9265	8205	1503	9708
E&I	E&I-ADM	1424	17267	18691	.	16483	16483	.	17050	17050
	E&I-CEIC	670	5766	6436	.	7319	7319	.	7312	7312
	TOTAL	2093	23033	25126	.	23802	23802	.	24362	24362
EMR	EMR-ENER	1936	2379	4315	1324	2773	4097	1611	2600	4211
	EMR-MES	194980	87680	282660	192256	91742	283998	193412	92023	285436
	TOTAL	196916	90059	286976	193580	94515	288095	195024	94623	289647
ENV	ENV-ADM	643	32	675	806	35	841	835	34	869
	ENV-AES	17998	202669	220667	19156	233315	252470	20023	233480	253502
	ENV-C&P	30183	60217	90400	30850	62955	93805	32908	66467	99375
	ENV-PC	74	13124	13198	77	13678	13755	80	14050	14130
	TOTAL	48899	275041	324940	50890	309983	360872	53845	314030	367875
EA	EA-CIA	.	8387	8387	.	8943	8943	.	9257	9257
FIN	FIN-FEP	.	16590	16590	.	18745	18745	.	20711	20711
F&O	F&O-FM	137893	100232	238125	124124	90870	214994	103207	85806	189013
IAND	IAND-NA	1344	499	1844	1536	554	2089	1291	551	1842

(CONTINUED)

FEDERAL INTRAMURAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
IDRC	IDRC	15531	10433	25964	17355	11658	29013	18530	12450	30980
IJC	IJC	.	3232	3232	.	3530	3530	.	3766	3766
JUST	JUST-ADM	825	1208	2033	864	981	1845	862	969	1831
	JUST-LRC	606	470	1077	655	522	1177	658	532	1190
	TOTAL	1431	1678	3109	1519	1503	3022	1520	1501	3021
LAB	LAB	124	5519	5644	.	4119	4119	.	4350	4350
MRC	MRC	3746	156	3902	3873	166	4039	4015	167	4182
NCC	NCC	.	686	686	.	838	838	.	859	859
NDEF	NDEF-SER	123244	3662	126906	133954	3853	137807	134092	4582	138675
NEB	NEB	.	2269	2269	.	2469	2469	.	2773	2773
NFB	NFB	746	473	1219	833	290	1123	860	290	1150
NHW	NHW-ADM	.	9032	9032	.	10983	10983	.	10861	10861
	NHW-HP	15056	52637	67693	14879	56566	71445	17755	61818	79573
	NHW-HSS	947	637	1584	1010	692	1702	1299	843	2142
	NHW-IS	.	1200	1200	.	1455	1455	.	1536	1536
	NHW-MS	443	1926	2369	581	1987	2568	575	1971	2546
	NHW-SS	252	536	788	245	520	766	264	560	824
	TOTAL	16697	65969	82666	16716	72203	88919	19893	77589	97482
NLC	NLC	.	42012	42012	.	44472	44472	.	44749	44749
NMC	NMC	9805	71207	81013	11329	82095	93424	13565	94710	108275
NRC	NRC-SIR	231896	18399	250295	263809	55260	319069	253969	54293	308262
	NRC-STI	.	26764	26764	.	.	.	.	.	.
	TOTAL	231896	45163	277058	263809	55260	319069	253969	54293	308262
NREV	NREV-TAX	175	2784	2959	188	2627	2815	207	2877	3084
NSERC	NSERC	10761	1565	12326	12101	1889	13990	11201	1748	12949
PA	PA	.	20594	20594	.	23498	23498	.	19200	19200
PW	PW-PTS	948	1736	2685	707	1948	2655	723	1979	2701
RIE	RIE	26541	506	27047	30644	574	31218	32339	596	32935
RCMP	RCMP	95	.	95	133	.	133	245	.	245
ST	ST	1042	8615	9657	623	12969	13792	891	12607	13498
SC	SC	1983	2325	4308	1277	1453	2730	1293	1386	2679
SECS	SECS-ADM	.	456	456	.	774	774	.	763	763
	SECS-CIT	630	.	630	491	.	491	515	.	515
	SECS-ES	262	.	262	276	.	276	324	.	324
	SECS-OL	1781	249	2030	1795	251	2046	1915	267	2182
	TOTAL	2673	705	3377	2562	1025	3587	2755	1030	3784
SSHRC	SSHRC	3424	3005	6429	3230	2984	6214	3359	3100	6459
SGEN	SGEN-ADM	3830	1182	5013	3652	1317	4969	3891	1397	5288

(CONTINUED)

TABLE 5

FEDERAL INTRAMURAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
STOTAL	STOTAL	10303	251655	262572	8745	341001	349747	9511	262573	272285
SS	SS-SUPP	144	45	189	167	29	196	172	32	204
TPT	TPT-ADM	4004	1891	5896	4422	1388	5809	4406	1422	5828
	TPT-AIR	1765	2175	3940	2306	1916	4222	2682	1729	4411
	TPT-MAR	3523	.	3523	5730	.	6732	4775	.	4775
	TPT-SUP	224	342	566	229	357	580	220	390	610
	TOTAL	9517	4408	13925	13682	3661	17343	12084	3541	15624
TB	TB-ADM	.	21340	21340	.	20805	20805	.	21922	21922
TOTAL	TOTAL	1377170	1178107	2555277	1414365	1335439	2749804	1379245	1279854	2659099

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE INDUSTRY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN INDUSTR

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	7133	97	7230	7154	106	7260	8101	106	8207
	AGR-DE	378	567	4328	2630	271	2901	1473	266	1739
	AGR-OC	1721	.	1721	.	.	.	.	.	.
	TOTAL	12515	664	13279	9784	377	10161	9574	372	9946
AECB	AECB	1006	9	1015	1694	217	1911	1707	223	1930
AECL	AECL	2933	8921	11854	9573	9600	19173	7775	7000	14775
CC	CC	.	3	3	.	3	3	.	3	3
CMHC	CMHC	393	1867	2260	328	2000	2328	328	2050	2378
CBC	CBC	.	3093	3093	.	3120	3120	.	3428	3428
CIDA	CIDA	.	28525	28525	.	29792	29792	.	41866	41866
CLFB	CLFB	25	.	25	.	.	.	.	.	.
CRTC	CRTC	11	.	11	10	.	10	.	.	.
COMM	COMM-CC	16291	1920	18201	14549	1319	15858	4759	1480	6239
CCA	CCA-ADM	281	415	696	470	300	770	470	300	770
	TOTAL	281	415	696	470	300	770	470	300	770
ECC	ECC	77	.	77	80	.	80	80	.	80
E&I	E&I-ADM	.	1207	1207	.	257	257	.	265	265
	E&I-CEIC	111	.	111	.	581	581	.	397	397
	TOTAL	111	1207	1318	.	838	838	.	662	662
EMR	EMR-ENER	32067	8747	40814	11309	16687	27996	11391	15806	27197
	EMR-MES	12045	11715	23760	15107	11815	26922	13754	13171	26925
	TOTAL	44112	20462	64574	26416	28502	54918	25145	28977	54122
ENV	ENV-ADM	296	100	396	117	.	117	330	.	330
	ENV-AES	2290	700	2990	2473	770	3243	2621	800	3421
	ENV-C&P	3469	1364	4833	3981	1446	5427	4136	1493	5629
	ENV-PC	351	272	623	365	283	648	380	294	674
	TOTAL	6406	2436	8842	6936	2499	9435	7467	2587	10054
EA	EA-CIA	.	.	.	.	460	460	.	490	490
F&O	F&O-FM	7989	8005	15994	7568	7754	15322	6204	7264	13468
IAND	IAND-NA	1131	597	1728	983	497	1480	943	243	1186
IDRC	IDRC	29	.	29	32	.	32	34	.	34
IJC	IJC	.	54	54	.	37	37	.	80	80
JUST	JUST-ADM	327	465	792	974	671	1645	618	482	1100
	JUST-LRC	.	380	380	.	370	370	.	350	350
	TOTAL	327	845	1172	974	1041	2015	618	832	1450
LAB	LAB	.	847	847	.	160	160	.	160	160
MRC	MRC	.	25	25	.	.	.	.	.	.
NCC	NCC	.	274	274	.	180	180	.	185	185

(CONTINUED)

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE INDUSTRY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN INDUSTRY

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NDEF	NDEF-SER	71044	63	71107	71987	40	72027	92006	55	92061
NHW	NHW-ADM	.	270	270	.	294	294	.	344	344
	NHW-HP	528	502	1030	528	358	886	528	358	886
	NHW-HSS	295	195	490	80	200	280	90	200	290
	NHW-IS	.	47	47	.	275	275	.	.	.
	NHW-MS	.	93	93	.	98	98	.	98	98
	TOTAL	823	1109	1932	608	1225	1833	618	1000	1618
NMC	NMC	.	823	823	.	903	903	.	1063	1063
NRC	NRC-SIR	103794	445	104239	101933	463	102396	99601	463	100064
	TOTAL	103794	445	104239	101933	463	102396	99601	463	100064
NSERC	NSERC	3188	1886	5074	4141	1887	6028	4399	2005	6404
PW	PW-PTS	1567	338	1905	1664	1751	3415	1620	1740	3360
RIE	RIE	163019	1200	164219	176150	1280	177430	183150	1330	184480
RCMP	RCMP	395	.	395	472	.	472	385	.	385
SC	SC	103	.	103	200	.	200	156	.	156
SECS	SECS-ADM	.	78	78	.	148	148	.	148	148
	SECS-CIT	228	.	228	213	.	213	174	.	174
	SECS-OL	.	25	25	.	.	.	.	.	.
	TOTAL	228	103	331	213	148	361	174	148	322
SGEN	SGEN-ADM	1000	700	1700	1000	700	1700	1000	700	1700
SS	SS-SUPP	10779	2910	13689	11225	1765	12990	10400	1435	11835
TPT	TPT-ADM	13620	862	14482	14824	855	15679	15512	780	16292
	TPT-AIR	125	326	451	400	369	769	600	426	1026
	TPT-MAR	3629	108	3737	1662	.	1662	2150	.	2150
	TPT-SUR	874	67	941	781	70	851	892	77	969
	TOTAL	18248	1363	19611	17667	1294	18961	19154	1283	20437
TOTAL	TOTAL	467918	91109	559027	466657	100152	565809	477767	109424	58719

TABLE 7

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE UNIVERSITY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	4143	194	4337	4092	110	4202	1525	10	1535
	AGR-DEV	5558	325	5883	5798	534	6332	5443	537	5980
	AGR-RI	136	.	136	214	.	214	150	.	150
	TOTAL	9837	519	10356	10104	644	10748	7118	547	7665
AECB	AECB	173	.	173	381	.	381	391	.	391
AECL	AECL	1093	28	1121	1395	125	1520	1300	150	1450
CC	CC	1	.	1	2	.	2	1	.	1
CMHC	CMHC	677	1436	2113	1216	1365	2581	1216	1438	2654
CBC	CBC	.	18	18	.	.	.	.	.	.
CIDA	CIDA	500	1749	2249	500	1827	2327	500	2567	3067
COMM	COMM-CC	2453	155	2608	1143	130	1273	1134	25	1159
CCA	CCA-ADM	19	.	19	71	.	71	70	.	70
	TOTAL	19	.	19	71	.	71	70	.	70
ECC	ECC	5	.	5	10	.	10	10	.	10
E&I	E&I-ADM	56	12	68	.	.	.	.	.	.
	E&I-CEIC	89	.	89	.	34	34	.	34	34
	TOTAL	145	12	157	.	34	34	.	34	34
EMR	EMR-ENER	514	723	1237	1507	736	2243	572	613	1185
	EMR-MES	4809	325	5134	4498	307	4805	4440	260	4700
	TOTAL	5323	1048	6371	6005	1043	7048	5012	873	5885
ENV	ENV-ADM	101	.	101	375	20	395	290	.	290
	ENV-AES	840	90	930	956	100	1056	1044	120	1164
	ENV-C&P	637	173	810	1478	182	1660	1519	190	1709
	ENV-PC	108	36	144	113	37	150	118	38	156
	TOTAL	1686	299	1985	2922	339	3261	2971	348	3319
EA	EA-CIA	.	2691	2691	.	2638	2638	.	2903	2903
F&O	F&O-FM	1666	376	2042	1645	356	2001	1375	402	1777
IAND	IAND-NA	946	6	952	949	13	962	908	.	908
IDRC	IDRC	2681	233	2914	2996	260	3256	3199	276	3475
IJC	IJC	.	.	.	.	16	16	.	.	.
JUST	JUST-ADM	95	279	374	96	289	385	91	251	342
	TOTAL	95	279	374	96	289	385	91	251	342
LAB	LAB	40	187	227	40	.	40	.	.	.
MRC	MRC	146951	5321	152272	152245	5607	157852	155593	5928	161521
NDEF	NDEF-SER	7575	44	7619	7963	41	8004	8053	65	8118
NHW	NHW-HP	336	217	553	336	318	654	336	326	662
	NHW-HSS	8345	5025	13370	9480	5533	15013	9515	5587	15102
	NHW-SS	1017	154	1171	717	153	870	459	151	610

(CONTINUED)

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE UNIVERSITY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NHW	TOTAL	9698	5396	15094	10533	6004	16537	10310	6064	16374
NMC	NMC	.	1198	1198	.	1337	1337	.	1599	1599
NRC	NRC-SIP	30417	134	30551	29996	139	30135	27996	139	28135
	TOTAL	30417	134	30551	29996	139	30135	27996	139	28135
NSERC	NSERC	254972	31665	286637	258246	33863	292109	268045	35223	303268
PCO	PCO	65	.	65	65	.	65	65	.	65
PW	PW-PTS	73	12	85	60	.	60	60	.	60
RIE	RIE	735	1695	2430	740	2010	2750	770	2127	2897
RCMP	RCMP	.	.	.	20	.	20	.	.	.
SC	SC	32	.	32	15	.	15	16	.	16
SECS	SECS-CIT	953	75	1028	952	56	1008	947	.	947
	SECS-ES	6770	1133	7903	5142	575	5717	.	.	.
	SECS-OL	.	89	89	.	50	50	.	55	55
	TOTAL	7723	1297	9020	6094	681	6775	947	55	1002
SSHRC	SSHRC	33121	12991	46112	38972	14320	53292	39184	12673	51857
SGEN	SGEN-ADM	1395	200	1595	1395	200	1595	1395	300	1695
SS	SS-SUPP	598	328	926	600	285	885	570	430	1000
TPT	TPT-ADM	850	219	1069	801	215	1016	550	170	720
	TPT-AIR	.	15	15	.	14	14	300	.	300
	TPT-MAR	93	.	93	.	.	.	.	.	.
	TPT-SUR	364	40	404	343	42	385	240	44	284
	TOTAL	1307	274	1581	1144	271	1415	1090	214	1304
TOTAL	TOTAL	521998	69595	591593	537563	73897	611460	539390	74631	614021

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NON-PROFIT INSTITUTE SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN N P INST

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	40	7	47	67	14	81	120	14	134
	AGR-DEV	1053	5	1058	1012	11	1023	936	10	946
	TOTAL	1093	12	1105	1079	25	1104	1056	24	1080
AECB	AECB	29	3	32	1	33	34	.	37	37
CC	CC	2	.	2	2	.	2	2	.	2
CMHC	CMHC	1207	167	1374	1796	180	1976	1796	180	1976
E&I	E&I-CEIC	.	99	99	.	40	40	.	20	20
	TOTAL	.	99	99	.	40	40	.	20	20
EMR	EMR-ENER	233	50	283	290	361	651	254	127	381
	EMR-MES	1325	43	1369	3201	88	3289	2795	.	2795
	TOTAL	1559	93	1652	3491	449	3940	3049	127	3176
ENV	ENV-ADM	6	15	21	30	.	30	40	.	40
	ENV-AES	13	146	159	13	80	93	13	90	103
	ENV-C&P	36	1747	1783	152	1525	1677	155	1605	1760
	ENV-PC	11	.	11	11	.	11	12	.	12
	TOTAL	65	1908	1974	206	1605	1811	220	1695	1915
F&O	F&O-FM	9	141	150	9	144	153	9	171	180
IAND	IAND-NA	117	66	183	90	195	285	100	100	200
IDRC	IDRC	842	15	857	941	17	958	1005	18	1023
JUST	JUST-ADM	72	740	812	81	1110	1191	64	379	443
	JUST-LRC	8	.	8	12	.	12	10	.	10
	TOTAL	80	740	820	93	1110	1203	74	379	453
LAB	LAB	.	71	71	.	.	.	.	.	.
MRC	MRC	200	252	452	200	337	537	200	350	550
NHW	NHW-ADM	.	40	40	.	40	40	.	40	40
	NHW-HP	92	64	156	92	65	157	92	65	157
	NHW-HSS	3303	1435	4738	3900	1829	5729	3852	1780	5632
	NHW-MS	.	88	88	.	97	97	.	97	97
	NHW-SS	1040	3638	4678	1289	3808	5097	851	4516	5367
	TOTAL	4435	5465	9900	5281	5838	11119	4795	6498	11293
NMC	NMC	.	1422	1422	.	1571	1571	.	1863	1863
NRC	NRC-SIR	669	.	669	687	78	765	687	78	765
	NRC-STI	.	78	78	.	.	.	.	.	.
	TOTAL	669	78	747	687	78	765	687	78	765
NSERC	NSERC	144	.	144	145	.	145	151	.	151
PW	PW-PTS	60	20	80	50	20	70	40	20	60
RIE	RIE	2604	1017	3621	2770	1000	3770	2880	1000	3880
RCMP	RCMP	12	.	12	.	.	.	.	.	.

(CONTINUED)

TABLE 8

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NON-PROFIT INSTITUTE SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN N P INST

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
ST	ST	.	.	.	.	.	.	1500	.	1500
SC	SC	10	.	10	25	.	25	20	.	20
SECS	SECS-CIT	405	8	413	445	.	445	450	.	450
	SECS-ES	20	.	20	.	.	.	.	.	.
	SECS-OL	.	176	176	.	255	255	.	275	275
	TOTAL	425	184	609	445	255	700	450	275	725
SSHRC	SSHRC	.	3696	3696	.	2990	2990	.	3041	3041
SGEN	SGEN-ADM	3782	175	3957	3700	200	3900	3700	200	3900
SS	SS-SUPP	.	114	114	90	35	125	90	75	165
TPT	TPT-ADM	741	192	933	300	190	490	250	150	400
	TPT-SUR	.	.	.	74	.	74	70	.	70
	TOTAL	741	192	933	374	190	564	320	150	470
TB	TB-ADM	153	.	153	158	.	158	153	.	153
TOTAL	TOTAL	18239	15930	34169	21634	16312	37946	22297	16301	38598

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE PROVINCIAL AND MUNICIPAL GOVERNMENT SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER PROV. & MUN. GOVT

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	59	.	59	79	2	81	5	.	5
	AGR-DEV	40	3	43	28	2	30	30	2	32
	TOTAL	99	3	102	107	4	111	35	2	37
AECB	AECB	62	.	62	31	.	31	34	.	34
CMHC	CMHC	36	.	36	661	8	669	661	8	669
E&I	E&I-CEIC	62	.	62	.	.	.	.	.	.
	TOTAL	62	.	62	.	.	.	.	.	.
EMR	EMR-ENER	2553	994	3547	1484	1054	2538	1800	3850	5650
	EMR-MES	61	7309	7370	53	14685	14738	9	14725	14734
	TOTAL	2614	8303	10917	1537	15739	17276	1809	18575	20384
ENV	ENV-AES	.	90	90	.	100	100	.	110	110
	ENV-C&P	285	3231	3516	204	3663	3867	206	3850	4056
	TOTAL	285	3321	3606	204	3763	3967	206	3960	4166
F&O	F&O-FM	170	23	193	170	16	186	30	16	46
IAND	IAND-NA	20	412	432	.	566	566	.	706	706
IJC	IJC	.	10	10	.	.	.	.	.	.
JUST	JUST-ADM	7	54	61	60	66	126	78	81	159
	TOTAL	7	54	61	60	66	126	78	81	159
LAB	LAB	.	.	.	.	23	23	.	.	.
MRC	MRC	10	.	10	26	.	26	32	.	32
NCC	NCC	10	2	12	10	.	10	10	.	10
NHW	NHW-ADM	.	1712	1712	.	1770	1770	.	1170	1170
	NHW-HP	120	10	130	120	10	130	120	10	130
	NHW-HSS	203	34	237	288	110	398	280	115	395
	NHW-SS	.	23	23	.	119	119	.	146	146
	TOTAL	323	1779	2102	408	2009	2417	400	1441	1841
NMC	NMC	.	7861	7861	.	8725	8725	.	10389	10389
NRC	NRC-SIR	190	.	190	198	.	198	198	.	198
	TOTAL	190	.	190	198	.	198	198	.	198
RIE	RIE	4495	367	4862	4800	408	5208	5000	423	5423
ST	ST	1394	.	1394	5286	.	5286	10345	.	10345
SGEN	SGEN-ADM	1050	175	1225	1200	200	1400	1200	200	1400
TPT	TPT-ADM	192	352	544	250	350	600	250	300	550
	TOTAL	192	352	544	250	350	600	250	300	550
TOTAL	TOTAL	11019	22662	33681	14948	31977	46925	20288	36101	56389

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE FOREIGN SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER FOREIGN PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	262	.	262	308	.	308	307	.	307
	AGR-CGC	.	3	3	.	5	5	.	5	5
	AGR-DEV	659	.	659	824	.	824	829	.	829
	TOTAL	921	3	924	1132	5	1137	1136	5	1141
AECB	AECB	568	.	568	562	5	567	699	5	704
AECL	AECL	280	.	280	390	.	390	200	.	200
CC	CC	6	.	6	6	.	6	7	.	7
CIDA	CIDA	16995	.	16995	18692	.	18692	20935	.	20935
COMM	COMM-CC	12369	.	12369	9720	10	9730	5220	10	5230
CCA	CCA-ADM	.	17	17	15	.	15	15	.	15
	TOTAL	.	17	17	15	.	15	15	.	15
E&I	E&I-CEIC	.	20	20	.	.	.	.	.	.
	TOTAL	.	20	20	.	.	.	.	.	.
EMR	EMR-ENER	356	55	411	300	.	300	700	.	700
	EMR-MES	8060	3256	11316	7695	3682	11377	9952	3939	13891
	TOTAL	8416	3311	11727	7995	3682	11677	10652	3939	14591
ENV	ENV-AES	.	720	720	.	738	738	.	738	738
	ENV-C&P	33	42	75	42	39	81	43	41	84
	ENV-PC	2	.	2	2	.	2	2	.	2
	TOTAL	35	762	797	44	777	821	45	779	824
EA	EA-CIA	.	760	760	.	771	771	.	857	857
F&O	F&O-FM	395	39	434	406	29	435	406	29	435
IAND	IAND-NA	.	.	.	.	15	15	.	.	.
IDRC	IDRC	45233	6116	51349	50543	6833	57376	53972	7296	61268
IJC	IJC	.	11	11	.	57	57	.	20	20
MRC	MRC	4517	62	4579	5122	264	5386	5301	69	5370
NDEF	NDEF-SER	6992	.	6992	4741	.	4741	6901	.	6901
NHW	NHW-HP	272	85	357	272	85	357	272	85	357
	NHW-HSS	342	.	342	390	.	390	390	.	390
	NHW-SS	.	231	231	.	168	168	.	206	206
	TOTAL	614	316	930	662	253	915	662	291	953
NLC	NLC	.	38	38	.	61	61	.	65	65
NRC	NRC-SIR	3236	.	3236	3572	.	3572	3545	.	3545
	TOTAL	3236	.	3236	3572	.	3572	3545	.	3545
NSERC	NSERC	2296	4317	6613	2540	4601	7141	2658	4790	7448
PW	PW-PTS	43	13	56	30	.	30	30	.	30
ST	ST	.	2124	2124	.	2194	2194	.	2959	2959
SC	SC	17	.	17	10	.	10	12	.	12

(CONTINUED)

T .E 10

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE FOREIGN SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER FOREIGN PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SSHRC	SSHRC	2550	4676	7226	2468	5674	8142	2540	4741	7281
SGEN	SGEN-ADM	.	.	.	.	100	100	.	.	.
STCAN	STCAN	.	94	94	.	98	98	.	48	48
TPT	TPT-ADM	179	4	183	.	.	.	.	.	.
	TPT-AIR	340	.	340	45	.	45	100	.	100
	TPT-MAR	10	.	10	.	.	.	.	.	.
	TOTAL	529	4	533	45	.	45	100	.	100
TOTAL	TOTAL	106012	22883	128895	109535	25429	134124	115136	25903	141039

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE OTHER SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER OTHER PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-POP	107	610	717	287	605	892	94	.	94
	AGR-DEV	713	106	819	475	203	678	379	200	579
	TOTAL	820	716	1536	762	808	1570	473	200	673
AECB	AECB	80	14	94	96	80	176	107	40	147
AECL	AECL	1087	.	1087	804	.	804	500	.	500
CMHC	CMHC	446	189	637	468	274	742	618	400	1018
CHRC	CHRC	.	56	56	.	75	75	.	100	100
CLFB	CLFB	20	.	20	20	.	20	20	.	20
COMM	COMM-CC	.	20	20	.	10	10	.	11	11
CCA	CCA-ADM	.	65	65	15	56	71	15	50	65
	TOTAL	.	65	65	15	56	71	15	50	65
ECC	ECC	227	.	227	250	.	250	250	.	250
E&I	E&I-CEIC	.	58	58	.	.	.	.	.	.
	TOTAL	.	58	58	.	.	.	.	.	.
EMR	EMR-ENER	1945	1219	3164	1500	1990	3490	2352	2769	5121
	EMR-MES	2354	185	2539	5026	250	5276	5769	172	5941
	TOTAL	4299	1404	5703	6526	2240	8766	8121	2941	11062
ENV	ENV-ADM	.	4	4	.	.	.	.	.	.
	ENV-AES	240	2843	3083	250	2976	3236	275	3080	3355
	ENV-C&P	904	693	1597	392	775	1167	407	811	1218
	ENV-PC	516	355	871	537	369	906	558	384	942
	TOTAL	1660	3895	5555	1189	4120	5309	1240	4275	5515
F&O	F&O-FM	319	292	611	315	246	561	248	230	478
IAND	IAND-NA	.	55	55	.	30	30	.	20	20
IDRC	IDRC	541	145	686	604	161	765	646	173	819
IJC	IJC	.	23	23	.	17	17	.	20	20
JUST	JUST-ADM	95	200	295	214	493	707	185	389	575
	JUST-LRC	1530	.	1530	1496	.	1496	1559	.	1559
	TOTAL	1625	200	1825	1710	493	2203	1745	389	2134
LAB	LAB	62	.	62	62	.	62	62	.	62
MRC	MRC	.	362	362	.	438	438	.	400	400
NCC	NCC	.	23	23	.	24	24	.	25	25
NDEF	NDEF-SER	1544	.	1544	925	.	925	925	.	925
NHW	NHW-HP	247	212	459	247	212	459	247	212	459
	NHW-HSS	83	254	337	.	540	540	.	550	550
	NHW-MS	.	1237	1237	.	1305	1305	.	1305	1305
	NHW-SS	.	85	85	.	112	112	.	157	157
	TOTAL	330	1788	2118	247	2169	2416	247	2224	2471

(CONTINUED)

TABLE 11

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE OTHER SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER OTHER PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NMC	NMC	400	4113	4513	448	4122	4570	532	4487	5019
NRC	NRC-SIP	7879	10	7889	8400	11	8411	8400	11	8411
	TOTAL	7879	10	7889	8400	11	8411	8400	11	8411
NSERC	NSERC	370	138	508	335	991	1326	413	1054	1467
PCO	PCO	5	.	5	25	.	25	25	.	25
PW	PW-PTS	72	1	73	50	.	50	50	.	50
RIE	RIE	400	231	631	400	240	640	400	250	650
RCMP	RCMP	106	.	106	75	.	75	75	.	75
SC	SC	167	.	167	77	.	77	131	.	131
SECS	SECS-ADM	.	16	16	.	30	30	.	30	30
	SECS-CIT	702	.	702	823	.	823	771	.	771
	SECS-OL	.	80	80	.	82	82	.	82	82
	TOTAL	702	96	798	823	112	935	771	112	883
SGEN	SGEN-ADM	200	225	425	100	.	100	100	.	100
SS	SS-SUPP	226	45	271	.	.	.	.	.	.
TPT	TPT-ADM	195	33	228	178	25	203	110	.	110
	TPT-MAR	.	31	31	.	.	.	.	.	.
	TPT-SUR	.	35	35	.	37	37	.	41	41
	TOTAL	195	99	294	178	62	240	110	41	151
TOTAL	TOTAL	23786	14261	38047	24964	16719	41683	26223	17453	43676

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-ADM	.	6643	6643	.	6593	6593	.	6802	6802
	AGR-FOR	68748	8255	77003	74676	9531	84207	72050	7605	79655
	AGR-CGC	3076	3146	6222	3958	3557	7515	3896	3943	7840
	AGR-DEV	279184	7027	286211	271325	6544	278568	267592	6508	274100
	AGR-RI	14512	12871	27383	13336	10863	24299	9570	12595	22065
	AGR-GC	1788	.	1788	.	.	.	.	.	.
	TOTAL	367308	37941	405249	363795	37287	401082	353121	37554	390675
AECB	AECB	2688	39	2727	3605	355	3960	3819	326	4145
AECL	AECL	122797	17295	140092	136480	18852	155332	125386	16500	141886
CC	CC	132	140	272	138	145	283	143	151	294
CMHC	CMHC	7708	11746	19454	9751	12636	22387	9943	12923	22866
CBC	CBC	.	5365	5365	.	4795	4795	.	4795	4795
CHRC	CHRC	.	475	475	.	547	547	.	653	653
CIDA	CIDA	18228	33909	52134	20006	35043	55049	22334	48208	70542
CLFB	CLFB	148	29	177	118	29	147	129	27	156
CRTC	CRTC	11	.	11	10	.	10	.	.	.
CTC	CTC	1926	1721	3647	1817	1706	3523	1820	1708	3528
COL	COL	.	3215	3215	.	3296	3296	.	3332	3332
COMM	COMM-CC	68310	9491	77801	58396	7517	65913	43102	7568	50670
CCA	CCA-ADM	2225	1053	3278	2621	860	3480	2533	874	3407
	CCA-CON	.	3347	3347	.	3532	3532	.	4128	4128
	CCA-COR	.	13770	13770	.	14097	14097	.	16618	16618
	TOTAL	2225	18171	20396	2621	18488	21109	2533	21620	24153
ECC	ECC	8018	1377	9395	8115	1489	9605	8545	1503	10048
E&I	E&I-ADM	1480	18486	19966	.	16740	16740	.	17315	17315
	E&I-CEIC	932	5943	6875	.	7974	7974	.	7763	7763
	TOTAL	2411	24429	26840	.	24714	24714	.	25078	25078
EMR	EMR-ENER	39504	14167	53771	17714	23601	41315	18680	25765	44445
	EMR-MES	223635	110513	334148	227836	122569	350405	230131	124290	354422
	TOTAL	263239	124680	387920	245550	146170	391720	248812	150055	398867
ENV	ENV-ADM	1046	151	1197	1328	55	1383	1495	34	1529
	ENV-AES	21381	207258	228639	22858	238079	260936	23976	238418	262393
	ENV-C&P	35547	67467	103014	37099	70585	107684	33374	74457	107831
	ENV-PC	1062	13787	14849	1105	14367	15472	1150	14766	15916
	TOTAL	59037	288662	347699	62391	323086	385476	65994	327674	393668
EA	EA-CIA	.	11838	11838	.	12872	12872	.	13507	13507
FIN	FIN-FEP	.	16590	16590	.	18745	18745	.	20711	20711
F&O	F&O-FM	148441	109108	257549	134237	99415	233652	111479	93918	205397

(CONTINUED)

TABLE 12

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
ALL PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
IAND	IAND-NA	3556	1635	5194	3556	1970	5527	3242	1620	4862
IDRC	IDRC	64857	16942	81799	72471	18929	91400	77387	20213	97600
IJC	IJC	.	3330	3330	.	3657	3657	.	3886	3886
JUST	JUST-ADM	1421	2946	4367	2289	3610	5899	1899	2551	4450
	JUST-LRC	2144	850	2995	2163	892	3055	2227	882	3109
	TOTAL	3565	3796	7361	4452	4502	8954	4126	3433	7559
LAB	LAB	225	6624	6851	102	4302	4404	62	4510	4572
MRC	MRC	155424	6178	161602	161466	6812	168278	165141	6914	172055
NCC	NCC	10	985	995	10	1042	1052	10	1069	1079
NDEF	NDEF-SER	210399	3769	214168	219570	3934	223504	241977	4702	246680
NEB	NEB	.	2269	2269	.	2469	2469	.	2773	2773
NFB	NFB	746	473	1219	833	290	1123	860	290	1150
NHW	NHW-ADM	.	11056	11056	.	13087	13087	.	12415	12415
	NHW-HP	16651	53727	70378	16474	57614	74088	19350	62874	82224
	NHW-HSS	13518	7580	21098	15148	9903	24051	15426	9075	24501
	NHW-IS	.	1247	1247	.	1730	1730	.	1536	1536
	NHW-MS	443	3344	3787	581	3487	4068	575	3471	4046
	NHW-SS	2309	4867	7176	2251	4880	7132	1574	5736	7310
	TOTAL	32920	81822	114742	34455	89701	124155	36925	95107	132032
NLC	NLC	.	42050	42050	.	44533	44533	.	44814	44814
NMC	NMC	10207	86622	96830	11777	98753	110530	14097	114111	128208
NRC	NRC-SIR	378081	18988	397069	408595	55951	464546	394396	54984	449380
	NRC-STI	.	26842	26842	.	.	.	.	.	.
	TOTAL	378081	45830	423910	408595	55951	464546	394396	54984	449380
NREV	NREV-TAX	175	2784	2959	188	2627	2815	207	2877	3084
NSERC	NSERC	271731	39571	311302	277569	43171	320740	286867	44820	331687
PCO	PCO	70	.	70	90	.	90	90	.	90
PA	PA	.	20594	20594	.	23498	23498	.	19200	19200
PW	PW-PTS	2763	2120	4884	2561	3719	6280	2523	3739	6261
RIE	RIE	197790	5020	202810	215504	5512	221016	224539	5726	230265
RCMP	RCMP	611	.	611	700	.	700	705	.	705
ST	ST	2436	10739	13175	6109	15163	21272	12736	15566	28302
SC	SC	2312	2325	4637	1604	1453	3057	1628	1386	3014
SECS	SECS-ADM	.	550	550	.	952	952	.	941	941
	SECS-CIT	2918	83	3001	2924	56	2980	2857	.	2857
	SECS-ES	7052	1133	8185	5418	575	5993	324	.	324
	SECS-OL	1781	619	2400	1795	638	2433	1915	679	2594
	TOTAL	11751	2385	14135	10137	2221	12358	5097	1620	6716

(CONTINUED)

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE: TOTAL
ALL PERFORMER: TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SSHRC	SSHRC	35085	24568	59653	44670	25568	70239	45181	23585	68738
SGEN	SGEN-ADM	11057	2657	13715	11047	2717	13764	11295	2787	14083
STCAN	STCAN	10903	251763	262566	9745	341099	349845	9511	262721	272233
SS	SS-SUPP	11747	3442	15189	12082	2114	14196	11232	1972	13204
TPT	TPT-ADM	19781	3553	23335	20775	3003	23787	21078	2822	23900
	TPT-AIR	2230	2516	4745	2751	2239	5050	3682	2155	5837
	TPT-MAR	7255	139	7394	8394	.	8394	6925	.	6925
	TPT-SUR	1462	484	1946	1421	506	1927	1422	552	1974
	TOTAL	30729	6692	37421	33340	5829	39168	33108	5529	38636
TB	TB-ADM	153	21340	21493	158	20805	20963	153	21922	22075
TOTAL	TOTAL	2525142	1414547	3940689	2588826	1599925	4188751	2580346	1559667	4140013

TABLE 13

TOTAL FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT BY PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
ANC ACTIVITY NET

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	1377170	55	1414365	55	1379245	53
CANADIAN INDUSTR.	467918	19	466657	18	477767	19
CANADIAN UNIVERSIT.	521998	21	537563	21	539390	21
CANADIAN N P INST	18239	1	21534	1	22297	1
PROV. & MUN. GOV'T	11019	0	14548	1	20288	1
FOREIGN PERFORMERS	106012	4	108695	4	115136	4
OTHER PERFORMERS	23786	1	24964	1	26223	1
TOTAL	2526142	100	2588826	100	2580346	100

TABLE 14

TOTAL FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND ACTIVITY R&D

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	57004	11744	68748	62589	11987	74576	61910	10152	72062
	AGR-CGC	3076	.	3076	3958	.	3958	3896	.	3896
	AGR-DEV	267400	11764	279164	261158	10767	271925	258502	9090	267592
	AGR-RI	14376	136	14512	13122	214	13336	9420	150	9570
	AGR-GD	67	1721	1788	.	.	.	.	.	.
	TOTAL	341923	25385	367308	340827	22968	363795	333729	19392	353121
AECB	AECB	770	1918	2688	840	2765	3605	881	2938	3819
AECL	AECL	117404	5393	122797	124318	12162	136480	115611	9775	125386
CC	CC	123	9	132	128	10	138	133	10	143
CMHC	CMHC	4947	2761	7708	5282	4469	9751	5324	4619	9943
CIDA	CIDA	731	17495	18226	814	19192	20006	899	21435	22334
CLFB	CLFB	103	45	148	98	20	118	109	20	129
CRTC	CRTC	.	111	11	.	10	10	.	.	.
CTC	CTC	1926	.	1926	1817	.	1817	1820	.	1820
COMM	COMM-CC	37207	31103	68310	32984	25412	58396	31989	11113	43102
CCA	CCA-ADM	1925	300	2225	2050	571	2621	1963	570	2533
	TOTAL	1925	300	2225	2050	571	2621	1963	570	2533
ECC	ECC	7709	309	8018	7776	340	8116	8205	340	8545
E&I	E&I-ADM	1424	56	1480	.	.	.	.	.	.
	E&I-CEIC	670	262	932	.	.	.	.	.	.
	TOTAL	2093	318	2411	.	.	.	.	.	.
EMR	EMR-ENER	1936	37668	39604	1324	16390	17714	1611	17069	18680
	EMR-MES	194980	28655	223635	192256	35580	227836	193412	36719	230131
	TOTAL	196916	66323	263239	193580	51970	245550	195024	53788	248812
ENV	ENV-ADM	643	403	1046	806	522	1328	835	660	1495
	ENV-AES	17998	3383	21381	19156	3702	22858	20023	3953	23976
	ENV-C&P	30183	5364	35547	30850	6249	37099	32908	6466	39374
	ENV-PC	74	988	1062	77	1029	1105	80	1070	1150
	TOTAL	48899	10138	59037	50890	11501	62391	53845	12149	65994
F&D	F&D-FM	137893	10548	148441	124124	10113	134237	103207	8272	111479
IAND	IAND-NA	1344	2214	3558	1536	2022	3558	1291	1951	3242
IDRC	IDRC	15531	49326	64857	17355	55116	72471	18532	58855	77387
JUST	JUST-ADM	825	596	1421	864	1425	2289	862	1037	1899
	JUST-LRC	606	1538	2144	655	1508	2163	656	1569	2227
	TOTAL	1431	2134	3565	1519	2933	4452	1520	2606	4126
LAB	LAB	124	102	226	.	102	102	.	62	62
MRC	MRC	3746	151678	155424	3873	157593	161466	4015	161126	165141
NCC	NCC	.	10	10	.	10	10	.	10	10

(CONTINUED)

TABLE 14

TOTAL FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND ACTIVITY: R&D

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NDEF	NDEF-SER	123244	87155	210399	133954	85616	219570	134092	107885	241977
NFB	NFB	746	.	746	833	.	833	850	.	850
NHW	NHW-HP	15056	1595	16651	14879	1595	16474	17755	1595	19350
	NHW-HSS	947	12571	13518	1010	14138	15148	1299	14127	15426
	NHW-MS	443	.	443	581	.	581	575	.	575
	NHW-SS	252	2057	2309	245	2006	2251	264	1310	1574
	TOTAL	16697	16223	32920	16716	17739	34455	19893	17032	36925
NMC	NMC	9805	402	10207	11329	448	11777	13565	532	14097
NRC	NRC-SIR	231895	146185	378081	263809	144786	408595	253969	140427	394396
	TOTAL	231896	146185	378081	263809	144786	408595	253969	140427	394396
NREV	NREV-TAX	175	.	175	188	.	188	207	.	207
NSERC	NSERC	10761	260970	271731	12101	265468	277569	11201	275666	286867
PCO	PCO	.	70	70	.	90	90	.	90	90
PW	PW-PTS	948	1815	2763	707	1854	2561	723	1800	2523
RIE	RIE	26541	171249	197790	30644	184860	215504	32339	192200	224539
RCMP	RCMP	95	516	611	133	567	700	245	460	705
ST	ST	1042	1394	2436	823	5286	6109	891	11845	12736
SC	SC	1983	329	2312	1277	327	1604	1293	335	1628
SECS	SECS-CIT	630	2288	2918	491	2433	2924	515	2342	2857
	SECS-ES	262	6790	7052	276	5142	5418	324	.	324
	SECS-OL	1781	.	1781	1795	.	1795	1915	.	1915
	TOTAL	2673	9078	11751	2562	7575	10137	2755	2342	5097
SSHRC	SSHRC	3424	35671	39095	3230	41440	44670	3359	41824	45183
SGEN	SGEN-ADM	3830	7427	11257	3652	7395	11047	3891	7395	11286
STCAN	STCAN	10903	.	10903	8746	.	8746	9611	.	9611
SS	SS-SUPP	144	11603	11747	167	11915	12082	172	11060	11232
TPT	TPT-ADM	4004	15777	19781	4422	16353	20775	4406	16672	21078
	TPT-AIR	1765	465	2230	2306	445	2751	2682	1000	3682
	TPT-MAR	3523	3732	7255	6732	1562	8294	4775	2150	6925
	TPT-SUR	224	1238	1462	223	1198	1421	220	1202	1422
	TOTAL	9517	21212	30729	13682	19658	33340	12084	21024	33108
TB	TB-ADM	.	153	153	.	158	158	.	153	153
TOTAL	TOTAL	1377170	1148972	2526142	1414365	1174461	2588826	1379245	1201101	2580346

FEDERAL INTRAMURAL EXPENDITURES ON RESEARCH AND DEVELOPMENT BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AL PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOP	26	.	56978	598	3	61988	135	.	61778
	AGR-OOC	.	.	3076	.	.	3958	.	.	3958
	AGR-DEV	1181	.	256219	1248	.	259909	1353	.	257169
	AGR-RI	.	.	14376	.	.	13122	.	.	9420
	AGR-GC	.	.	67	.	.	.	.	.	.
	TOTAL	1206	.	340715	1847	3	338978	1488	.	332261
AECB	AECB	.	.	770	.	.	840	.	.	881
AECL	AECL	585	100	116715	635	150	123532	650	125	114836
CC	CC	.	.	123	.	.	128	.	.	133
CMHC	CMHC	.	.	4947	.	.	5282	.	.	5324
CIDA	CIDA	.	.	731	.	.	814	.	.	899
CLFB	CLFB	.	.	103	.	.	98	.	.	105
CTC	CTC	.	.	1926	.	.	1817	.	.	1820
COMM	COMM-CC	65	986	36157	92	973	31930	90	964	30934
CCA	CCA-ADM	.	.	1925	.	.	2050	.	.	1963
	TOTAL	.	.	1925	.	.	2050	.	.	1963
ECC	ECC	.	.	7709	.	.	7778	.	.	8235
E&I	E&I-ADM	.	.	1424	.	.	.	.	.	.
	E&I-CEIC	.	.	670	.	.	.	.	.	.
	TOTAL	.	.	2093	.	.	.	.	.	.
EMR	EMR-ENER	.	573	1284	.	655	669	.	797	815
	EMR-MES	242	35	194703	215	.	192041	.	.	193412
	TOTAL	242	708	195957	215	655	192710	.	797	194227
ENV	ENV-ADM	.	.	643	.	.	806	.	.	835
	ENV-AES	351	.	17648	382	.	18774	406	.	19616
	ENV-C&P	73	.	30110	73	.	30777	74	.	32934
	ENV-PC	.	74	.	.	77	.	.	80	.
	TOTAL	424	74	48401	455	77	50358	480	80	53385
F&O	F&O-FM	961	.	136932	593	.	123530	608	.	102599
IAND	IAND-NA	.	.	1344	.	.	1536	.	.	1091
IDRC	IDRC	.	.	15531	.	.	17355	.	.	18532
JUST	JUST-ADM	.	.	825	.	.	864	.	.	862
	JUST-LRC	.	.	606	.	.	655	.	.	658
	TOTAL	.	.	1431	.	.	1519	.	.	1520
LAB	LAB	.	.	124	.	.	.	.	.	.
MRC	MRC	.	.	3746	.	.	3873	.	.	4015
NDEF	NDEF-SER	.	.	123244	.	.	133954	.	.	134092
NFB	NFB	.	.	746	.	.	833	.	.	860

(CONTINUED)

FEDERAL INTRAMURAL EXPENDITURES ON RESEARCH AND DEVELOPMENT BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NHW	NHW-HP	187	.	14868	186	.	14593	193	.	17561
	NHW-HSS	.	.	947	.	.	1010	.	.	1299
	NHW-MS	.	.	443	.	.	581	.	.	575
	NHW-SS	.	.	253	.	.	245	.	.	264
	TOTAL	187	.	16511	186	.	16529	193	.	19699
NMC	NMC	.	.	9805	.	.	11329	.	.	13565
NRC	NRC-SIR	.	.	231896	.	.	253809	.	.	253969
	TOTAL	.	.	231896	.	.	263809	.	.	253969
NREV	NREV-TAX	.	.	175	.	.	188	.	.	207
NSERC	NSERC	.	.	10761	.	.	12101	.	.	11201
PW	PW-PTS	.	.	948	.	.	707	.	.	723
RIE	RIE	.	.	26541	.	.	30644	.	.	32339
RCMP	RCMP	.	.	95	.	.	133	.	.	245
ST	ST	.	.	1042	.	.	823	.	.	891
SC	SC	.	.	1983	.	.	1277	.	.	1293
SECS	SECS-CIT	.	.	630	.	.	491	.	.	515
	SECS-ES	.	.	262	.	.	276	.	.	324
	SECS-OL	.	.	1781	.	.	1795	.	.	1915
	TOTAL	.	.	2673	.	.	2562	.	.	2755
SSHRC	SSHRC	.	.	3424	.	.	3230	.	.	3359
SGEN	SGEN-ADM	.	.	3830	.	.	3652	.	.	3891
STCAN	STCAN	.	.	10903	.	.	8748	.	.	9611
SS	SS-SUPP	.	.	144	.	.	167	.	.	172
TPT	TPT-ADM	.	.	4004	.	.	4422	.	.	4406
	TPT-AIR	.	.	1765	.	.	2306	.	.	2682
	TPT-MAR	.	.	3523	.	.	6732	.	.	4775
	TPT-SUP	.	.	224	.	.	223	.	.	220
	TOTAL	.	.	9517	.	.	13682	.	.	12084
TOTAL	TOTAL	3671	1867	1371632	4024	1859	1408483	3490	1966	1373790

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE INDUSTRY SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN INDUSTR

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	6011	1122	.	6579	575	.	6829	1272	.
	AGR-DEV	387	3374	.	503	2127	.	600	873	.
	AGR-GO	1721	.	.	.	.	.	.	.	.
	TOTAL	8119	4496	.	7082	2702	.	7429	2145	.
AECB	AECB	.	1006	.	.	1694	.	.	1707	.
AECL	AECL	.	2933	.	.	9573	.	.	7775	.
CMHC	CMHC	.	393	.	286	42	.	286	42	.
CLFB	CLFB	.	25	.	.	.	.	.	.	.
CRTC	CRTC	.	11	.	.	10	.	.	.	.
COMM	COMM-CC	1303	14978	.	11211	3338	.	1853	2906	.
CCA	CCA-ADM	.	281	.	.	470	.	.	470	.
	TOTAL	.	281	.	.	470	.	.	470	.
ECC	ECC	.	77	.	.	80	.	.	80	.
E&I	E&I-CEIC	.	111	.	.	.	.	.	.	.
	TOTAL	.	111	.	.	.	.	.	.	.
EMR	EMR-ENER	30065	2002	.	8769	2540	.	8637	2694	.
	EMR-MES	20	12025	.	620	14487	.	565	13189	.
	TOTAL	30085	14027	.	9389	17027	.	9262	15883	.
ENV	ENV-ADM	.	296	.	.	117	.	.	330	.
	ENV-AES	.	2290	.	.	2473	.	.	2621	.
	ENV-C&P	.	3469	.	.	3981	.	.	4136	.
	ENV-PC	.	351	.	.	365	.	.	380	.
	TOTAL	.	6406	.	.	6936	.	.	7467	.
F&O	F&O-FM	816	7173	.	690	6878	.	.	6204	.
IAND	IAND-NA	90	1041	.	193	790	.	200	743	.
IDRC	IDRC	29	.	.	32	.	.	34	.	.
JUST	JUST-ADM	.	327	.	.	974	.	.	618	.
	TOTAL	.	327	.	.	974	.	.	618	.
NDEF	NDEF-SER	.	71044	.	.	71987	.	.	82006	.
NHW	NHW-HP	.	528	.	.	528	.	.	528	.
	NHW-HSS	60	235	.	80	.	.	90	.	.
	TOTAL	60	763	.	80	528	.	90	528	.
NRC	NRC-SIR	73291	30503	.	69560	32373	.	74847	24754	.
	TOTAL	73291	30503	.	69560	32373	.	74847	24754	.
NSERC	NSERC	3188	.	.	4141	.	.	4399	.	.
PW	PW-PTS	.	1567	.	.	1664	.	.	1620	.
RIE	RIE	163019	.	.	176150	.	.	183150	.	.
RCMP	RCMP	.	398	.	.	472	.	.	385	.

(CONTINUED)

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE INDUSTRY SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN INDUSTR

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SC	SC	.	193	.	.	200	.	.	156	.
SECS	SECS-CIT	.	228	.	.	213	.	.	174	.
	TOTAL	.	228	.	.	213	.	.	174	.
SGEN	SGEN-ADM	.	1000	.	.	1000	.	.	1000	.
SS	SS-SUPP	.	10779	.	.	11225	.	.	10400	.
TPT	TPT-ADM	.	13620	.	1430	13394	.	2400	13112	.
	TPT-AIR	.	125	.	.	400	.	.	600	.
	TPT-MAR	.	3629	.	.	1662	.	.	2150	.
	TPT-SUR	161	713	.	.	781	.	.	892	.
	TOTAL	161	18087	.	1430	16237	.	2400	16754	.
TOTAL	TOTAL	280161	187757	.	280244	186413	.	283950	193817	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE UNIVERSITY SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	2413	1730	.	2335	1757	.	.	1525	.
	AGR-DEV	2457	3101	.	3825	1373	.	4639	804	.
	AGR-RI	.	136	.	.	214	.	.	150	.
	TOTAL	4870	4967	.	6160	3344	.	4639	2479	.
AECB	AECB	.	179	.	.	351	.	.	391	.
AECL	AECL	.	1093	.	.	1335	.	.	1300	.
CC	CC	.	1	.	.	2	.	.	1	.
CMHC	CMHC	677	.	.	1216	.	.	1216	.	.
CIDA	CIDA	500	.	.	500	.	.	500	.	.
COMM	COMM-CC	114	2339	.	438	705	.	438	696	.
CCA	CCA-ADM	.	19	.	.	71	.	.	70	.
	TOTAL	.	19	.	.	71	.	.	70	.
ECC	ECC	.	5	.	.	10	.	.	10	.
E&I	E&I-ADM	.	56	.	.	.	.	.	.	.
	E&I-CEIC	.	89	.	.	.	.	.	.	.
	TOTAL	.	145	.	.	.	.	.	.	.
EMR	EMR-ENER	7	507	.	7	1500	.	.	572	.
	EMR-MES	1545	3264	.	1548	2950	.	1535	2905	.
	TOTAL	1552	3771	.	1555	4450	.	1535	3477	.
ENV	ENV-ADM	.	101	.	.	375	.	100	190	.
	ENV-AES	596	244	.	692	284	.	764	280	.
	ENV-C&P	490	147	.	505	973	.	505	1014	.
	ENV-PC	.	108	.	.	113	.	.	118	.
	TOTAL	1086	600	.	1197	1725	.	1369	1602	.
F&O	F&O-FM	630	1036	.	630	1015	.	360	1015	.
IAND	IAND-NA	826	120	.	826	123	.	526	82	.
IDRC	IDRC	2681	.	.	2996	.	.	3199	.	.
JUST	JUST-ADM	95	.	.	96	.	.	91	.	.
	TOTAL	95	.	.	96	.	.	91	.	.
LAB	LAB	40	.	.	40	.	.	.	.	.
MRC	MRC	146951	.	.	152245	.	.	155593	.	.
NDEF	NDEF-SER	.	7575	.	.	7963	.	.	8053	.
NHW	NHW-HP	.	336	.	.	336	.	.	336	.
	NHW-HSS	8295	50	.	9480	.	.	9515	.	.
	NHW-SS	1017	.	.	717	.	.	459	.	.
	TOTAL	9312	386	.	10197	336	.	9974	336	.
NRC	NRC-SIR	26715	3702	.	26146	3850	.	24146	3850	.
	TOTAL	26715	3702	.	26146	3850	.	24146	3850	.

(CONTINUED)

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE UNIVERSITY SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
ALL PERFORMER CANADIAN UNIVERSIT

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NSERC	NSERC	254970	.	.	258246	.	.	268045	.	.
PCO	PCO	65	.	.	65	.	.	65	.	.
PW	PW-PTS	.	73	.	.	60	.	.	60	.
RIE	RIE	731	.	.	740	.	.	770	.	.
RCMP	RCMP	.	.	.	.	20	.	.	.	.
SC	SC	.	32	.	.	15	.	.	16	.
SECS	SECS-CIT	875	78	.	875	77	.	875	72	.
	SECS-ES	6770	.	.	5142	.	.	.	.	.
	TOTAL	7645	78	.	6017	77	.	875	72	.
SSHRC	SSHRC	33121	.	.	38972	.	.	39184	.	.
SGEN	SGEN-ADM	645	750	.	645	750	.	645	750	.
SS	SS-SUPP	.	598	.	.	600	.	.	570	.
TPT	TPT-ADM	73	777	.	70	731	.	100	450	.
	TPT-AIR	.	.	.	.	.	.	.	300	.
	TPT-MAR	50	43	.	.	.	.	.	.	.
	TPT-SUR	68	296	.	37	306	.	40	200	.
	TOTAL	191	1116	.	107	1037	.	140	950	.
TOTAL	TOTAL	493419	28579	.	509034	28529	.	513610	25780	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NON-PROFIT INSTITUTE SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN N P INST

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	.	40	.	57	10	.	100	20	.
	AGR-OE	593	460	.	686	326	.	768	168	.
	TOTAL	593	500	.	743	336	.	868	188	.
AECB	AECB	.	29	.	.	1	.	.	.	.
CC	CC	.	2	.	.	2	.	.	2	.
CMHC	CMHC	974	233	.	1796	.	.	1796	.	.
EMR	EMR-ENER	10	223	.	90	200	.	.	254	.
	EMR-MES	1326	.	.	2826	375	.	2795	.	.
	TOTAL	1336	223	.	2916	575	.	2795	254	.
ENV	ENV-ADM	.	6	.	.	30	.	.	40	.
	ENV-AES	.	13	.	.	13	.	.	13	.
	ENV-C&P	15	21	.	.	152	.	.	155	.
	ENV-PC	.	11	.	.	11	.	.	12	.
	TOTAL	15	51	.	.	206	.	.	220	.
F&O	F&O-FM	.	9	.	.	9	.	.	9	.
IAND	IAND-NA	117	.	.	90	.	.	100	.	.
IDRC	IDRC	842	.	.	941	.	.	1005	.	.
JUST	JUST-ADM	19	53	.	35	46	.	35	29	.
	JUST-LRC	.	8	.	.	12	.	.	10	.
	TOTAL	19	61	.	35	58	.	35	39	.
MRC	MRC	200	.	.	200	.	.	200	.	.
NHW	NHW-HP	15	77	.	15	77	.	15	77	.
	NHW-HSS	3303	.	.	3900	.	.	3852	.	.
	NHW-SS	1040	.	.	1289	.	.	851	.	.
	TOTAL	4358	77	.	5204	77	.	4718	77	.
NRC	NRC-SIR	209	460	.	209	478	.	209	478	.
	TOTAL	209	460	.	209	478	.	209	478	.
NSERC	NSERC	146	.	.	146	.	.	151	.	.
PW	PW-PTS	60	.	.	50	.	.	40	.	.
RIE	RIE	2604	.	.	2770	.	.	2880	.	.
RCMP	RCMP	.	12	.	.	.	.	.	.	.
ST	ST	.	.	.	.	.	.	1500	.	.
SC	SC	.	10	.	.	25	.	.	20	.
SECS	SECS-SIT	321	84	.	375	70	.	375	75	.
	SECS-ES	20	.	.	.	.	.	.	.	.
	TOTAL	341	84	.	375	70	.	375	75	.
SGEN	SGEN-ADM	3282	500	.	3300	400	.	3300	400	.
SS	SS-SUPP	.	.	.	.	90	.	.	90	.

(CONTINUED)

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NON-PROFIT INSTITUTE SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER CANADIAN N. P. INST

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
TPT	TPT-ADM	.	741	.	.	300	.	.	250	.
	TPT-SUR	.	.	.	21	53	.	20	50	.
	TOTAL	.	741	.	21	353	.	20	300	.
TB	TB-ADM	153	.	.	158	.	.	153	.	.
TOTAL	TOTAL	15247	2992	.	18954	2680	.	20145	2152	.

TABLE 19

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE PROVINCIAL AND MUNICIPAL GOVERNMENT SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
PERFORMER PROV. + MUN. GOVT

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	.	59	.	.	75	.	.	5	.
	AGR-DEV	.	40	.	.	28	.	.	30	.
	TOTAL	.	99	.	.	103	.	.	35	.
AECB	AECB	.	62	.	.	31	.	.	34	.
CMHC	CMHC	28	10	.	651	10	.	651	10	.
E&I	E&I-CEIC	.	62	.	.	.	.	.	.	.
	TOTAL	.	62	.	.	.	.	.	.	.
EMR	EMR-ENER	2553	.	.	1484	.	.	1800	.	.
	EMR-MES	32	29	.	53	.	.	9	.	.
	TOTAL	2585	29	.	1537	.	.	1809	.	.
ENV	ENV-C&P	.	285	.	.	204	.	.	206	.
	TOTAL	.	285	.	.	204	.	.	206	.
F&O	F&O-FM	140	30	.	140	30	.	.	30	.
IAND	IAND-NA	20	.	.	.	.	.	.	.	.
JUST	JUST-ADM	.	7	.	.	60	.	.	78	.
	TOTAL	.	7	.	.	60	.	.	78	.
MRC	MRC	10	.	.	28	.	.	30	.	.
NCC	NCC	.	10	.	.	10	.	.	10	.
NHA	NHW-HP	.	120	.	.	120	.	.	120	.
	NHW-HSS	203	.	.	288	.	.	280	.	.
	TOTAL	203	120	.	288	120	.	280	120	.
NRC	NRC-SIR	.	190	.	.	198	.	.	198	.
	TOTAL	.	190	.	.	198	.	.	198	.
RIE	RIE	4495	.	.	4800	.	.	5000	.	.
ST	ST	1394	.	.	5286	.	.	10945	.	.
SGEN	SGEN-ADM	750	300	.	800	400	.	800	400	.
TPT	TPT-ADM	.	192	.	.	250	.	.	250	.
	TOTAL	.	192	.	.	250	.	.	250	.
TOTAL	TOTAL	9623	1396	.	13528	1420	.	18517	1371	.

TABLE 20

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE FOREIGN SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER FOREIGN PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	172	90	.	183	125	.	182	125	.
	AGR-OE	659	.	.	824	.	.	829	.	.
	TOTAL	831	90	.	1007	125	.	1011	125	.
AECB	AECB	564	4	.	562	.	.	699	.	.
AECL	AECL	.	280	.	.	390	.	.	200	.
CC	CC	.	6	.	.	6	.	.	7	.
CIDA	CIDA	16995	.	.	18692	.	.	20935	.	.
COMM	COMM-CC	10350	19	.	9700	20	.	5200	20	.
CCA	CCA-ADM	.	.	.	.	15	.	.	15	.
	TOTAL	.	.	.	.	15	.	.	15	.
EMR	EMR-ENER	356	.	.	300	.	.	700	.	.
	EMR-MES	7735	325	.	7390	305	.	9577	375	.
	TOTAL	8091	325	.	7690	305	.	10277	375	.
ENV	ENV-CEP	.	33	.	.	42	.	.	43	.
	ENV-PC	.	2	.	.	2	.	.	2	.
	TOTAL	.	35	.	.	44	.	.	45	.
F&O	F&O-FM	15	380	.	30	376	.	30	376	.
IDRC	IDRC	45239	.	.	50543	.	.	53972	.	.
MRC	MRC	4817	.	.	5122	.	.	5301	.	.
NDEP	NDEP-SER	.	6992	.	.	4741	.	.	6901	.
NHW	NHW-HP	55	217	.	55	217	.	55	217	.
	NHW-HSS	342	.	.	390	.	.	390	.	.
	TOTAL	397	217	.	445	217	.	445	217	.
NRC	NRC-SIR	3007	229	.	3334	238	.	3307	238	.
	TOTAL	3007	229	.	3334	238	.	3307	238	.
NSERC	NSERC	2296	.	.	2540	.	.	2658	.	.
PW	PW-PTS	.	43	.	.	30	.	.	30	.
SC	SC	.	17	.	.	10	.	.	12	.
SSHRC	SSHRC	2550	.	.	2468	.	.	2640	.	.
TPT	TPT-ADM	.	179	.	.	.	.	.	.	.
	TPT-AIR	.	340	.	.	45	.	.	100	.
	TPT-MAR	.	10	.	.	.	.	.	.	.
	TOTAL	.	529	.	.	45	.	.	100	.
TOTAL	TOTAL	96846	9166	.	102133	6562	.	106475	8661	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE OTHER SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER OTHER PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	.	107	.	.	287	.	.	94	.
	AGR-DEV	368	345	.	258	217	.	230	89	.
	TOTAL	368	452	.	258	504	.	230	183	.
AECB	AECB	.	80	.	.	96	.	.	107	.
AECL	AECL	.	1087	.	.	804	.	.	800	.
CMHC	CMHC	.	448	.	291	177	.	441	177	.
CLFB	CLFB	.	20	.	.	20	.	.	20	.
CCA	CCA-ADM	.	.	.	.	15	.	.	15	.
	TOTAL	.	.	.	.	15	.	.	15	.
ECC	ECC	.	227	.	.	250	.	.	250	.
EMR	EMR-ENER	.	1945	.	.	1500	.	.	2352	.
	EMR-MES	468	1886	.	341	4685	.	906	4863	.
	TOTAL	468	3831	.	341	6185	.	906	7215	.
ENV	ENV-AES	.	240	.	.	260	.	.	278	.
	ENV-C&P	.	904	.	.	392	.	.	407	.
	ENV-PC	.	515	.	.	537	.	.	558	.
	TOTAL	.	1660	.	.	1189	.	.	1240	.
F&O	F&O-FM	67	252	.	67	248	.	.	248	.
IDRC	IDRC	541	.	.	604	.	.	645	.	.
JUST	JUST-ADM	.	95	.	.	214	.	.	186	.
	JUST-LRC	.	1530	.	.	1496	.	.	1559	.
	TOTAL	.	1625	.	.	1710	.	.	1745	.
LAB	LAB	62	.	.	62	.	.	62	.	.
NDEF	NDEF-SER	.	1544	.	.	925	.	.	925	.
NHW	NHW-HP	.	247	.	.	247	.	.	247	.
	NHW-HSS	.	83	.	.	.	.	.	.	.
	TOTAL	.	330	.	.	247	.	.	247	.
NMC	NMC	.	402	.	.	448	.	.	532	.
NRC	NRC-SIR	7658	221	.	8170	230	.	8170	230	.
	TOTAL	7658	221	.	8170	230	.	8170	230	.
NSERC	NSERC	370	.	.	395	.	.	413	.	.
PCO	PCO	5	.	.	25	.	.	25	.	.
PW	PW-PTS	.	72	.	.	50	.	.	50	.
RIE	RIE	400	.	.	400	.	.	400	.	.
RCMP	RCMP	.	106	.	.	75	.	.	75	.
SC	SC	.	167	.	.	77	.	.	131	.
SECS	SECS-CIT	504	198	.	515	308	.	460	311	.
	TOTAL	504	198	.	515	308	.	460	311	.

(CONTINUED)

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE OTHER SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER OTHER PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SGEN	SGEN-ADM	200	.	.	100	.	.	100	.	.
SS	SS-SUPP	.	226		.	.	.	.	.	.
TPT	TPT-ADM	.	195	.	.	178	.	.	110	.
	TOTAL	.	195	.	.	178		.	110	.
TOTAL	TOTAL	10643	13143	.	11228	13736	.	11912	14311	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	8602	3148	58978	9752	2836	61388	7248	3041	61776
	AGR-CGC	.	.	3076	.	.	3958	.	.	3996
	AGR-DEV	5645	7320	266219	7344	4671	259909	8459	1964	257169
	AGR-RI	.	136	14376	.	214	13122	.	150	9420
	AGR-GO	1721	.	67	.	.	.	.	.	.
	TOTAL	15987	10604	340716	17097	7721	338979	15705	5155	332361
AECB	AECB	564	1354	770	562	2203	840	699	2239	981
AECL	AECL	585	5493	115719	636	12312	103532	650	9900	114836
CC	CC	.	9	123	.	10	128	.	10	133
CMHC	CMHC	1677	1084	4947	4240	229	5282	4390	229	5324
CIDA	CIDA	17495	.	731	19152	.	814	21435	.	899
CLFB	CLFB	.	45	103	.	20	98	.	20	109
CRTC	CRTC	.	11	.	.	10	.	.	.	.
CTC	CTC	.	.	1926	.	.	1817	.	.	1920
COMM	COMM-CC	13832	18322	36157	21441	5036	31920	7581	4586	30934
CCA	CCA-ADM	.	300	1925	.	571	2050	.	570	1963
	TOTAL	.	300	1925	.	571	2050	.	570	1963
ECC	ECC	.	309	7709	.	340	7776	.	340	8205
E&I	E&I-ADM	.	56	1424	.	.	.	.	.	.
	E&I-CEIC	.	262	670	.	.	.	.	.	.
	TOTAL	.	318	2093	.	.	.	.	.	.
EMR	EMR-ENER	32991	5350	1264	10550	6395	669	11197	6669	815
	EMR-MES	11368	17564	194703	12993	22802	192041	15387	21332	193412
	TOTAL	44359	22914	195967	23643	29197	192710	26584	28001	194227
ENV	ENV-ADM	.	403	643	.	522	806	100	560	835
	ENV-AES	947	2787	17648	1074	3010	18774	1170	3189	19616
	ENV-C&P	578	4859	30110	578	5744	30777	579	5961	32834
	ENV-PC	.	1062	.	.	1105	.	.	1150	.
	TOTAL	1525	9111	48401	1652	10381	50356	1849	10860	53295
F&O	F&O-FM	2629	8880	136932	2150	8556	123530	998	7882	102599
IAND	IAND-NA	1053	1161	1344	1109	913	1536	1126	825	1291
IDRC	IDRC	49326	.	1553	55116	.	17355	58855	.	18532
JUST	JUST-ADM	114	482	825	131	1294	864	125	911	862
	JUST-LRC	.	1538	606	.	1508	655	.	1569	658
	TOTAL	114	2020	1431	131	2802	1519	125	2480	1520
LAB	LAB	102	.	124	102	.	.	60	.	.
MRC	MRC	151678	.	3746	157593	.	3873	161126	.	4015
NCC	NCC	.	10	.	.	10	.	.	10	.

(CONTINUED)

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL AND PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NDEF	NDEF-SER	.	87155	103244	.	95616	133954	.	107885	134092
NFB	NFB	.	.	746	.	.	833	.	.	860
NHW	NHW-HP	257	1525	14869	256	1525	14693	263	1525	17561
	NHW-HSS	12203	368	947	14138	.	1010	14127	.	1299
	NHW-MS	.	.	443	.	.	581	.	.	575
	NHW-SS	2057	.	252	2006	.	245	1310	.	264
	TOTAL	14517	1893	16511	16400	1525	16529	15700	1525	19699
NMC	NMC	.	402	9805	.	448	11329	.	532	13565
NRC	NRC-SIR	110880	35305	231896	107419	37367	263809	110679	29748	253969
	TOTAL	110880	35305	231896	107419	37367	263809	110679	29748	253969
NREV	NREV-TAX	.	.	175	.	.	188	.	.	207
NSERC	NSERC	260970	.	10751	265468	.	12101	275666	.	11201
PCO	PCO	70	.	.	90	.	.	90	.	.
PW	PW-PTS	60	1755	948	50	1804	707	40	1760	723
RIE	RIE	171249	.	26541	184850	.	30644	192200	.	32339
RCMP	RCMP	.	516	95	.	567	133	.	460	245
ST	ST	1394	.	1042	5286	.	823	11845	.	891
SC	SC	.	329	1983	.	327	1277	.	335	1293
SECS	SECS-CIT	1700	589	630	1765	668	491	1710	632	515
	SECS-ES	6790	.	262	5142	.	276	.	.	324
	SECS-OL	.	.	1781	.	.	1795	.	.	1915
	TOTAL	8490	589	2673	6907	668	2562	1710	632	2755
SSHRC	SSHRC	35671	.	3424	41440	.	3230	41824	.	3359
SGEN	SGEN-ADM	4877	2550	3830	4845	2550	3652	4845	2550	3891
STCAN	STCAN	.	.	10903	.	.	8746	.	.	9611
SS	SS-SUPP	.	11603	144	.	11915	167	.	11060	172
TPT	TPT-ADM	73	15704	4004	1500	14853	4422	2500	14172	4406
	TPT-AIR	.	465	1765	.	445	2306	.	1000	2582
	TPT-MAR	50	3682	3523	.	1662	6732	.	2150	4775
	TPT-SUR	229	1009	224	58	1140	223	60	1142	220
	TOTAL	352	20860	9517	1558	18100	13682	2560	18464	12084
TB	TB-ADM	153	.	.	156	.	.	153	.	.
TOTAL	TOTAL	909610	244900	1371632	939145	241198	1408483	958459	248056	1373790

TABLE 23

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES BY PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND ACTIVITY PSA

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	1178107	83	1335439	83	1279854	82
CANADIAN INDUSTRY	91109	6	100152	6	109424	7
CANADIAN UNIVERSITY	69595	5	78897	5	74631	5
CANADIAN N P INST	15930	1	16312	1	16301	1
PROV. & MUN. GOV T	22662	2	31577	2	36101	2
FOREIGN PERFORMERS	22883	2	25429	2	25903	2
OTHER PERFORMERS	14261	1	16719	1	17453	1
TOTAL	1414547	100	1599925	100	1559667	100

TABLE 24

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND ACTIVITY RSA

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-ADM	6643	.	6643	6593	.	6593	6802	.	6802
	AGR-FOR	7347	908	8255	8694	837	9531	7475	130	7605
	AGR-COC	3143	3	3146	3552	5	3557	3938	5	3943
	AGR-DEV	6021	1006	7027	5623	1021	6644	5493	1015	6508
	AGR-RI	12671	.	12671	10963	.	10963	12695	.	12695
	TOTAL	36024	1917	37941	35424	1863	37287	36404	1150	37554
AECB	AECB	13	26	39	20	335	355	21	305	326
AECL	AECL	8346	8949	17295	9127	9725	18852	9350	7150	16500
CC	CC	137	3	140	142	3	145	148	3	151
CMHC	CMHC	8087	3659	11746	8809	3827	12636	8847	4076	12923
CBC	CBC	2254	3111	5365	1675	3120	4795	1367	3428	4795
CHRC	CHRC	419	56	475	472	75	547	553	100	653
CIDA	CIDA	3535	30274	33909	3424	31619	35043	3775	44433	48208
CLFB	CLFB	29	.	29	29	.	29	27	.	27
CTC	CTC	1721	.	1721	1706	.	1706	1708	.	1708
COL	COL	3215	.	3215	3296	.	3296	3332	.	3332
COMM	COMM-CC	7336	2095	9431	6048	1469	7517	6042	1526	7568
CCA	CCA-ADM	555	497	1053	504	356	860	524	350	874
	CCA-CON	3347	.	3347	3532	.	3532	4128	.	4128
	CCA-COR	13770	.	13770	14097	.	14097	16618	.	16618
	TOTAL	17674	497	18171	18132	356	18488	21270	350	21620
ECC	ECC	1377	.	1377	1489	.	1489	1503	.	1503
E&I	E&I-ADM	17267	1219	18486	16483	257	16740	17050	265	17315
	E&I-CEIC	5766	177	5943	7319	655	7974	7312	451	7763
	TOTAL	23033	1396	24429	23802	912	24714	24362	716	25078
EMR	EMR-ENER	2379	11788	14167	2773	20828	23601	2600	23165	25765
	EMR-MES	87680	22833	110513	91742	30827	122569	92023	32267	124290
	TOTAL	90059	34621	124680	94515	51655	146170	94623	55432	150055
ENV	ENV-ADM	32	119	151	35	20	55	34	.	34
	ENV-AES	202669	4589	207258	233315	4764	238079	233480	4938	238418
	ENV-C&P	60217	7250	67467	62955	7630	70585	66467	7990	74457
	ENV-PC	13124	663	13787	13678	689	14367	14050	716	14766
	TOTAL	276041	12621	288662	309983	13103	323086	314030	13644	327674
EA	EA-CIA	8387	3451	11838	8943	3929	12872	9257	4250	13507
FIN	FIN-FEP	16590	.	16590	18745	.	18745	20711	.	20711
F&O	F&O-FM	100232	8876	109108	90870	8545	99415	85806	8112	93918
IAND	IAND-NA	499	1136	1635	554	1416	1970	551	1069	1620
IDRC	IDRC	10433	6509	16942	11658	7271	18929	12450	7763	20213

(CONTINUED)

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL AND ACTIVITY: R&D

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
IJC	IJC	3232	98	3330	3530	127	3657	3766	120	3886
JUST	JUST-ADM	1208	1738	2946	981	2629	3610	969	1582	2551
	JUST-LRC	470	380	850	522	370	892	532	350	882
	TOTAL	1678	2118	3796	1503	2999	4502	1501	1932	3433
LAB	LAB	5519	1105	6624	4119	183	4302	4350	160	4510
MRC	MRC	156	6022	6178	166	6646	6812	167	6747	6914
NCC	NCC	686	299	985	838	204	1042	859	210	1069
NDEF	NDEF-SER	3662	107	3769	3853	81	3934	4582	120	4702
NEB	NEB	2269	.	2269	2469	.	2469	2773	.	2773
NFB	NFB	473	.	473	290	.	290	290	.	290
NHW	NHW-ADM	9032	2024	11056	10983	2104	13087	10861	1554	12415
	NHW-HP	52637	1090	53727	56566	1048	57614	61818	1056	62874
	NHW-HSS	637	6943	7580	692	8211	8903	843	8232	9075
	NHW-IS	1200	47	1247	1455	275	1730	1536	.	1536
	NHW-MS	1926	1418	3344	1987	1500	3487	1971	1500	3471
	NHW-SS	536	4331	4867	520	4360	4880	560	5176	5736
	TOTAL	65969	15853	81822	72203	17498	89701	77589	17518	95107
NLC	NLC	42012	38	42050	44472	61	44533	44749	65	44814
NMC	NMC	71207	15415	86622	82095	16658	98753	94710	19401	114111
NRC	NRC-SIR	18399	589	18988	55260	691	55951	54293	691	54984
	NRC-STI	26764	78	26842	.	.	.	.	.	.
	TOTAL	45163	667	45830	55260	691	55951	54293	691	54984
NREV	NREV-TAX	2784	.	2784	2627	.	2627	2877	.	2877
NSERC	NSERC	1565	39006	39571	1889	41292	43171	1748	43072	44820
PA	PA	20594	.	20594	23498	.	23498	19200	.	19200
PW	PW-PTS	1736	384	2120	1948	1771	3719	1979	1760	3739
RIE	RIE	506	4514	5020	574	4938	5512	596	5130	5726
ST	ST	8615	2124	10739	12969	2194	15163	12607	2959	15566
SC	SC	2325	.	2325	1453	.	1453	1386	.	1386
SECS	SECS-ADM	456	94	550	774	178	952	763	178	941
	SECS-CIT	.	83	83	.	56	56	.	.	.
	SECS-ES	.	1133	1133	.	575	575	.	.	.
	SECS-OL	249	370	619	251	387	638	257	412	679
	TOTAL	705	1680	2385	1025	1196	2221	1030	590	1620
SSHRC	SSHRC	3005	21563	24568	2984	22984	25968	3100	20455	23555
SGEN	SGEN-ADM	1182	1475	2657	1317	1400	2717	1397	1400	2797
STCAN	STCAN	251669	94	251763	341001	98	341099	262673	48	262721
SS	SS-SUPP	45	3397	3442	29	2085	2114	32	1940	1972

(CONTINUED)

TABLE 24

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND ACTIVITY RSA

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
TPT	TPT-ADM	1891	1662	3553	1388	1635	3023	1422	1400	2822
	TPT-AIR	2175	341	2516	1916	383	2299	1729	426	2155
	TPT-MAR	.	139	139	.	.	.	.	.	.
	TPT-SUR	342	142	484	357	149	506	390	162	552
	TOTAL	4408	2284	6692	3661	2167	5828	3541	1988	5529
TB	TB-ADM	21340	.	21340	20805	.	20805	21922	.	21922
TOTAL	TOTAL	1178107	236440	1414547	1335439	264486	1599925	1279854	279813	1559667

TABLE 25

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	264	5951	847	4666	2079	2855	160	16823
INTRAMURAL RSA	472	4200	2211	4136	4435	693	12	16159
ADMIN. OF EXTRAMURAL PROGRAMS	60	432	446	46	448	10	10	1453
TOTAL	795	10582	3505	8849	6963	3558	182	34435

SCIENCE TYPE TOTAL
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	263	5923	863	4610	2073	2738	167	16637
INTRAMURAL RSA	496	4280	2113	4231	4264	652	12	16048
ADMIN. OF EXTRAMURAL PROGRAMS	57	437	453	45	450	9	10	1461
TOTAL	817	10640	3429	8887	6786	3400	189	34147

SCIENCE TYPE TOTAL
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	264	5953	841	4644	2006	2566	164	16438
INTRAMURAL RSA	488	4282	2126	4169	4025	596	12	15699
ADMIN. OF EXTRAMURAL PROGRAMS	55	431	450	47	453	9	10	1455
TOTAL	808	10666	3417	8860	6484	3171	186	33591

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY DEPARTMENT AND CATEGORY, 1985-86

SCIENCE TYPE TOTAL
AND YEAR 1985-86

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITARY	TOTAL
		PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
DEPARTMENT	PROGRAM								
AGR	AGR-ADM	1	44	26	5	43	.	.	119
	AGR-FOR	30	326	59	362	123	74	.	973
	AGR-CSC	1	22	3	65	11	2	.	104
	AGR-DEV	53	934	121	895	358	1366	.	3726
	AGR-RI	1	97	2	126	25	39	.	290
	AGR-GO	.	.	.	.	1	.	.	1
	TOTAL	86	1422	211	1452	561	1481	.	5213
AECB	AECB	.	13	1	.	.	.	.	14
AECL	AECL	19	763	.	932	324	524	.	2562
CC	CC	2	2	.	2	1	.	.	7
CMHC	CMHC	3	104	.	3	61	.	.	169
CBC	CBC	4	22	1	21	1	.	.	49
CHRC	CHRC	1	3	3	.	1	.	.	8
CIDA	CIDA	1	3	35	3	15	.	.	57
CLFB	CLFB	0	1	.	.	1	.	.	2
CTC	CTC	3	45	.	9	9	.	.	66
COL	COL	6	.	41	.	12	.	.	59
COMM	COMM-CC	20	188	25	133	45	.	.	409
CCA	CCA-ADM	4	33	1	2	7	.	.	47
	CCA-CON	1	10	8	35	8	3	.	65
	CCA-COR	7	121	17	1	112	.	.	258
	TOTAL	12	164	26	38	127	3	.	370
ECC	ECC	3	52	26	17	34	.	.	132
E&I	E&I-ADM	7	105	9	30	55	.	.	207
	E&I-CEIC	4	113	2	4	44	.	.	167
	TOTAL	11	219	11	34	99	.	.	374
EMR	EMR-ENER	3	25	8	.	7	.	.	43
	EMR-MES	58	1148	178	823	381	152	.	2740
	TOTAL	61	1173	186	823	388	152	.	2783
ENV	ENV-ADM	.	2	6	.	0	.	.	8
	ENV-AES	68	657	234	1087	367	29	.	2442
	ENV-C&P	11	397	163	308	297	83	.	1259
	ENV-PC	.	77	7	74	33	5	.	196
	TOTAL	79	1133	410	1469	697	117	.	3905
EA	EA-CIA	16	10	51	.	34	.	.	111
FIN	FIN-FEP	25	132	24	18	51	.	.	249
F&O	F&O-FM	52	851	159	862	311	504	.	2737
IAND	IAND-NA	1	17	2	.	3	.	.	23
IDRC	IDRC	7	117	25	52	83	.	.	284

(CONTINUED)

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY DEPARTMENT AND CATEGORY, 1985-86

SCIENCE TYPE TOTAL
AND YEAR 1985-86

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
DEPARTMENT	PROGRAM								
IJC	IJC	5	11	6	4	20	.	.	47
JUST	JUST-ADM	3	12	6	.	11	.	.	31
	JUST-LRC	3	2	6	1	18	.	.	30
	TOTAL	6	14	12	1	29	.	.	61
LAB	LAB	3	34	13	40	13	.	.	103
MRC	MRC	6	.	22	.	26	.	.	54
NCC	NCC	.	11	6	.	.	.	.	17
NDEF	NDEF-SER	21	585	123	463	279	239	182	1891
NEB	NEB	4	30	1	2	5	.	.	42
NFB	NFB	.	4	.	2	2	.	.	8
NHW	NHW-ADM	11	60	10	39	30	.	.	150
	NHW-HP	28	581	35	251	245	54	.	1194
	NHW-HSS	2	7	12	.	7	.	.	28
	NHW-IS	2	9	10	1	1	.	.	24
	NHW-MS	.	13	.	14	13	.	.	40
	NHW-SS	2	7	.	.	5	.	.	14
	TOTAL	45	677	67	305	301	54	.	1450
NLC	NLC	11	210	54	52	221	1	.	549
NMC	NMC	45	110	249	268	194	177	.	1043
NRC	NRC-SIR	6	1177	243	929	543	250	.	3150
	NRC-STI	.	79	41	1	125	4	.	250
	TOTAL	8	1256	284	930	668	254	.	3400
NREV	NREV-TAX	2	60	.	.	.	.	.	62
NSERC	NSERC	11	1	52	.	84	.	.	148
PA	PA	9	109	12	76	89	.	.	295
PW	PW-PTS	0	26	9	10	.	.	.	45
RIE	RIE	.	.	166	.	71	.	.	237
RCMP	RCMP	1	1	.	.	1	.	.	3
ST	ST	41	5	29	.	33	.	.	108
SC	SC	6	10	24	.	10	.	.	50
SECS	SECS-ADM	1	4	1	.	.	.	.	6
	SECS-CIT	1	4	.	1	2	.	.	8
	SECS-ES	.	2	.	1	1	.	.	3
	SECS-OL	.	.	42	.	4	.	.	46
	TOTAL	2	10	43	2	7	.	.	63
SSHRC	SSHRC	11	2	45	.	49	.	.	107
SGEN	SGEN-ADM	6	77	3	5	25	3	.	119
STCAN	STCAN	85	810	904	802	1919	48	.	4569
SS	SS-SUPP	0	.	2	.	2	.	.	5

(CONTINUED)

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY DEPARTMENT AND CATEGORY, 1985-86

SCIENCE TYPE TOTAL
AND YEAR 1985-86

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITARY	TOTAL
		PY S	PY S	PY S	PY S	PY S	PY S	PY S	PY S
DEPARTMENT	PROGRAM								
TPT	TPT-ADM	1	39	10	6	18	.	.	74
	TPT-AIR	1	23	1	5	.	.	.	30
	TPT-MAR	.	16	5	3	3	.	.	27
	TPT-SUR	3	1	0	2	.	2	.	8
	TOTAL	5	79	16	16	21	2	.	139
TB	TB-ADM	50	18	128	3	37	.	.	236
TOTAL	TOTAL	796	10582	3505	8849	6963	3558	182	34435

TABLE 26

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY DEPARTMENT AND CATEGORY, 1986-87

SCIENCE TYPE TOTAL
AND YEAR 1986-87

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
DEPARTMENT	PROGRAM								
AGR	AGR-ADM	1	44	29	5	42	.	.	121
	AGR-FOR	27	307	57	350	112	91	.	945
	AGR-CGC	1	25	4	68	12	2	.	113
	AGR-DEV	62	974	112	880	350	1246	.	3624
	AGR-RI	1	95	3	118	25	37	.	279
	TOTAL	92	1466	205	1423	540	1355	.	5082
AECB	AECB	.	13	1	.	.	.	.	14
AECL	AECL	19	777	.	518	332	557	.	2603
CC	CC	2	2	.	2	.	.	.	7
CMHC	CMHC	3	101	.	4	74	.	.	181
CBC	CBC	4	22	1	21	1	.	.	49
CHRC	CHRC	1	3	3	.	1	.	.	8
CIDA	CIDA	1	3	35	3	15	.	.	57
CLFB	CLFB	0	1	.	.	.	.	.	2
CTC	CTC	3	39	.	8	8	.	.	58
COL	COL	7	.	42	.	12	.	.	61
COMM	COMM-CC	19	188	33	128	48	.	.	416
CCA	CCA-ADM	4	33	11	2	7	.	.	47
	CCA-CON	1	10	8	33	9	3	.	64
	CCA-COR	7	121	17	1	114	.	.	260
	TOTAL	12	164	26	36	130	3	.	371
ECC	ECC	3	50	26	17	32	.	.	128
E&I	E&I-ADM	.	113	9	30	51	.	.	203
	E&I-CEIC	6	125	2	11	31	8	.	183
	TOTAL	6	238	11	41	82	8	.	386
EMR	EMR-ENER	3	26	7	.	7	.	.	43
	EMR-MES	57	1146	173	821	365	148	.	2710
	TOTAL	60	1172	180	821	372	148	.	2753
ENV	ENV-ADM	.	2	6	.	0	.	.	8
	ENV-AES	68	654	261	1081	350	22	.	2436
	ENV-C&P	11	407	165	312	301	85	.	1281
	ENV-PC	.	77	7	74	33	5	.	196
	TOTAL	79	1140	439	1467	684	112	.	3921
EA	EA-CIA	19	10	46	.	33	.	.	108
FIN	FIN-FEP	33	153	24	24	45	.	.	279
F&O	F&O-FM	51	769	158	885	311	477	.	2649
IAND	IAND-NA	1	18	2	.	3	.	.	24
IDRC	IDRC	8	130	25	52	95	.	.	310
IJC	IJC	6	10	5	4	20	.	.	45

(CONTINUED)

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY DEPARTMENT AND CATEGORY, 1986-87

SCIENCE TYPE TOTAL
AND YEAR 1986-87

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERA'S	MILITARY	TOTAL
DEPARTMENT	PROGRAM	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
JUST	JUST-ADM	2	14	4	.	11	.	.	31
	JUST-LRC	3	3	5	1	17	.	.	29
	TOTAL	5	17	9	1	28	.	.	60
LAB	LAB	3	25	4	24	11	.	.	67
MRC	MRC	5	.	19	.	29	.	.	53
NCC	NCC	.	13	8	.	.	.	.	21
NDEF	NDEF-SER	24	595	136	452	280	227	189	1902
NEB	NEB	3	31	1	2	5	.	.	42
NFB	NFB	.	4	.	2	2	.	.	8
NHW	NHW-ADM	12	65	10	37	31	.	.	155
	NHW-HP	26	601	36	245	236	52	.	1196
	NHW-HSS	2	7	11	.	7	.	.	28
	NHW-IS	3	10	10	3	1	.	.	27
	NHW-MS	.	12	.	14	10	.	.	36
	NHW-SS	.	7	.	.	4	.	.	13
	TOTAL	43	702	69	299	289	52	.	1454
NLC	NLC	10	199	53	54	213	1	.	530
NMC	NMC	40	130	252	303	186	162	.	1073
NRC	NRC-SIR	8	1241	286	929	677	259	.	3400
	TOTAL	8	1241	286	929	677	259	.	3400
NREV	NREV-TAX	2	54	.	.	.	.	.	56
NSERC	NSERC	11	.	52	.	79	.	.	143
PA	PA	9	110	9	78	87	.	.	293
PW	PW-PTS	0	22	9	11	.	.	.	42
RIE	RIE	.	.	187	.	79	.	.	266
RCMP	RCMP	1	3	.	.	1	.	.	5
ST	ST	42	10	38	1	44	.	.	135
SC	SC	5	7	15	.	3	.	.	30
SECS	SECS-ADM	1	5	1	.	.	.	.	7
	SECS-CIT	1	4	.	1	2	.	.	8
	SECS-ES	.	2	.	1	0	.	.	3
	SECS-OL	.	.	42	.	4	.	.	46
	TOTAL	2	11	43	2	6	.	.	64
SSHRC	SSHRC	10	2	46	.	45	.	.	103
SGEN	SGEN-ADM	6	58	3	5	24	3	.	99
STCAN	STCAN	102	845	788	857	1801	34	.	4427
SS	SS-SUPP	0	.	2	.	2	.	.	5
TPT	TPT-ADM	1	36	10	3	18	.	.	68
	TPT-AIR	1	23	1	5	.	.	.	30

(CONTINUED)

TABLE 26

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY DEPARTMENT AND CATEGORY, 1986-87

SCIENCE TYPE TOTAL
AND YEAR 1986-87

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
DEPARTMENT	PROGRAM								
TPT	TPT-MAR	.	13	3	3	1	.	.	20
	TPT-SUR	3	1	0	1	.	2	.	8
	TOTAL	5	73	14	12	13	2	.	126
TB	TB-ADM	51	17	124	1	36	.	.	229
TOTAL	TOTAL	817	10640	3429	8887	6786	3400	189	34147

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY DEPARTMENT AND CATEGORY, 1987-88

SCIENCE TYPE TOTAL
AND YEAR 1987-88

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
DEPARTMENT	PROGRAM								
AGR	AGR-ADM	1	41	29	5	41	.	.	117
	AGR-FOR	27	325	57	350	107	72	.	937
	AGR-CCC	1	26	4	68	12	2	.	113
	AGR-DEV	82	971	117	928	366	1126	.	3570
	AGR-RI	1	98	3	118	25	37	.	282
	TOTAL	92	1461	210	1469	551	1237		5019
AECB	AECB	.	13	1	.	.	.	.	14
AECL	AECL	19	769	.	914	310	550	.	2562
CC	CC	2	2	.	2	1	.	.	7
CMHC	CMHC	3	101	.	2	65	.	.	170
CBC	CBC	4	22	1	21	1	.	.	49
CHRC	CHRC	1	4	3	.	2	.	.	10
CIDA	CIDA	1	3	35	3	15	.	.	57
CLFB	CLFB	0	1	.	.	1	.	.	2
CTC	CTC	3	35	.	8	8	.	.	58
COL	COL	6	.	45	.	10	.	.	61
COMM	COMM-CC	19	189	33	126	48	.	.	417
CCA	CCA-ADM	4	33	1	2	7	.	.	47
	CCA-CDN	1	7	6	38	5	3	.	64
	CCA-COR	8	121	17	1	115	.	.	262
	TOTAL	13	161	24	41	131	3	.	373
ECC	ECC	4	49	27	19	27	.	.	126
E&I	E&I-ADM	.	113	9	30	51	.	.	203
	E&I-CEIC	5	121	2	10	32	9	.	179
	TOTAL	5	234	11	40	83	9	.	382
EMR	EMP-ENER	2	25	8	.	13	.	.	48
	EMR-MES	56	1131	176	808	363	144	.	2678
	TOTAL	58	1156	184	808	376	144	.	2726
ENV	ENV-ADM	0	4	6	.	1	.	.	11
	ENV-AES	65	656	282	1080	340	19	.	2452
	ENV-C&P	10	415	171	317	309	89	.	1311
	ENV-PC	.	77	7	74	33	5	.	196
	TOTAL	75	1162	466	1471	683	113	.	3970
EA	EA-CIA	19	10	46	.	33	.	.	108
FIN	FIN-FEP	32	148	27	23	45	.	.	275
F&C	F&C-FM	49	748	110	767	198	396	.	2267
IAND	IAND-NA	1	18	2	.	3	.	.	24
IDRC	IDRC	8	130	25	52	95	.	.	310
IJC	IJC	6	11	4	4	20	.	.	45

(CONTINUED)

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY DEPARTMENT AND CATEGORY, 1987-88

SCIENCE TYPE TOTAL
AND YEAR 1987-88

		CATEGOR							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		PY $	PY $	PY $	PY $	PY $	PY $	PY $	PY $
DEPARTMENT	PROGRAM								
JUST	JUST-ADM	2	14	5	.	11	.	.	32
	JUST-LRC	3	3	5	1	17	.	.	29
	TOTAL	5	17	10	1	28	.	.	61
LAB	LAB	3	21	.	23	18	.	.	65
MRC	MRC	5	.	21	.	26	.	.	52
NCC	NCC	.	14	8	.	.	.	.	22
NDEF	NDEF-SEP	24	599	136	459	281	225	186	1907
NEB	NEB	4	32	1	3	6	.	.	46
NFB	NFB	.	4	.	2	2	.	.	8
NHW	NHW-ADM	12	64	9	35	31	.	.	151
	NHW-HP	27	513	36	247	229	51	.	1203
	NHW-HSS	2	7	11	.	7	.	.	28
	NHW-IS	2	9	10	4	2	.	.	26
	NHW-MS	.	12	.	14	10	.	.	36
	NHW-SS	1	7	.	.	4	.	.	13
	TOTAL	44	712	67	300	283	51	.	1457
NLC	NLC	13	189	51	55	213	.	.	521
NMC	NMC	43	166	276	310	182	154	.	1141
NRC	NRC-SIR	9	1254	280	967	682	255	.	3447
	TOTAL	9	1254	280	967	682	255	.	3447
NRE.	NRE.-TAP	2	54	.	.	.	.	.	56
NSERC	NSERC	9	.	54	.	79	.	.	142
PA	PA	8	105	15	70	77	.	.	275
PW	PW-PTS	0	22	9	11	.	.	.	42
RIE	RIE	.	.	186	.	79	.	.	265
RCMP	RCMP	1	4	.	.	1	.	.	6
ST	ST	42	9	33	1	40	.	.	125
SC	SC	5	7	15	.	3	.	.	30
SECS	SECS-ADM	1	5	1	.	.	.	.	7
	SECS-CIT	1	4	.	1	2	.	.	8
	SECS-ES	.	3	.	1	.	.	.	4
	SECS-OL	.	.	42	.	4	.	.	46
	TOTAL	2	12	43	2	6	.	.	65
SSHRC	SSHRC	11	1	43	.	40	.	.	95
SGEN	SGEN-ADM	6	58	3	5	24	3	.	99
STCAN	STCAN	101	874	773	871	1644	25	.	4288
SS	SS-SUPP	0	.	2	.	2	.	.	5
TPT	TPT-ADM	1	35	10	3	18	.	.	67
	TPT-AIR	1	23	3	7	.	.	.	34

CONTINUED

TOTAL FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES BY DEPARTMENT AND CATEGORY, 1987-88

SCIENCE TYPE TOTAL
AND YEAR 1987-88

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERA'S	MILITARY	TOTAL
		P+ S	P+ S	P+ S	P+ S	P+ S	P+ S	P+ S	P+ S
DEPARTMENT	PROGRAM								
TPT	TPT-MAR	.	5	3	3	1	.	.	13
	TPT-SUR	3	2	0	1	.	2	.	8
	TOTAL	5	66	16	14	19	2	.	122
TB	TB-ADM	45	15	12	1	34	.	.	216
TOTAL	TOTAL	808	10666	3417	8860	5484	3171	186	33591

TABLE 27

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES BY PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND ACTIVITY TOTAL

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	1957506	62	2040911	62	2008315	61
CANADIAN INDUSTRY	542331	17	550001	17	570943	17
CANADIAN UNIVERSITY	521822	16	534028	16	538387	16
CANADIAN N P INST	13414	0	14764	0	15640	0
PROV. & MUN. GOV'T	18338	1	22435	1	31176	1
FOREIGN PERFORMERS	97036	3	98998	3	104890	3
OTHER PERFORMERS	27205	1	30319	1	31605	1
TOTAL	3177652	100	3291656	100	3300956	100

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES BY ACTIVITY AND PERFORMER, 1985-86

SCIENCE TYPE NATURAL
AND YEAR 1985-86

	PERFORMER							
	INTRAMURAL	CANADIAN INDUSTR.	CANADIAN UNIVERSITY	CANADIAN N P INST	PROV. & MUN. GOVT	FOREIGN PERFORMERS	OTHER PERFORMERS	TOTAL
	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ACTIVITIES								
IN-HOUSE R&D	910836	.	.	.	.	.	.	910836
R&D CONTRACTS	1832	184547	27421	2088	1017	9131	10025	236061
SUPPORTING CONTRACTS	64267	.	.	.	.	.	.	64267
R&D GRANTS	.	276722	431407	5826	8817	67290	9179	800241
RESEARCH FELLOWSHIPS	3671	3188	17638	.	10	7511	349	32367
ADMIN. EXTRAMURAL R&D	76087	.	.	.	.	.	.	76087
CAPITAL - R&D	258998	.	.	.	.	.	.	258998
SUB TOTAL R&D	1315691	464457	476466	8914	9844	83932	19553	2378857
DATA COLLECTION	352581	23068	4521	2771	3652	3418	3818	393829
INFORMATION SERVICES	143660	2186	611	572	126	2482	969	150706
TESTING & STANDARDIZATION	42228	1902	294	331	180	17	559	45511
FEASIBILITY STUDIES	7939	48378	958	53	1169	2519	1045	62061
EDUCATIONAL SUPPORT	1745	1891	38523	.	.	4668	811	47638
MUSEUM SERVICES	22656	449	449	673	3367	.	450	28044
ADMIN. EXTRAMURAL RSA	11631	.	.	.	.	.	.	11631
CAPITAL - RSA	59375	.	.	.	.	.	.	59375
SUB TOTAL RSA	541815	77874	45356	4500	8494	13104	7652	798795
TOTAL	1957506	542331	521822	13414	18338	97036	27205	3177652

TABLE 28

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES BY ACTIVITY AND PERFORMER, 1986-87

SCIENCE TYPE NATURAL
AND YEAR 1986-87

	PERFORMER							
	INTRAMURAL	CANADIAN INDUSTR.	CANADIAN UNIVERSITY	CANADIAN N P INST	PROV. & MUN. GOV'T	FOREIGN PERFORMERS	OTHER PERFORMERS	TOTAL
	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ACTIVITIES								
IN-HOUSE R&D	997384	.	.	.	.	.	.	997384
R&D CONTRACTS	1800	182668	27420	2086	950	6519	10784	232227
SUPPORTING CONTRACTS	62663	.	.	.	.	.	.	62663
R&D GRANTS	.	275237	440034	7594	12051	69680	9490	814086
RESEARCH FELLOWSHIPS	4024	4141	18892	.	26	8435	388	35906
ADMIN. EXTRAMURAL R&D	84324	.	.	.	.	.	.	84324
CAPITAL - R&D	205294	.	.	.	.	.	.	205294
SUB TOTAL R&D	1355489	462046	486346	9680	13027	84634	20662	2431884
DATA COLLECTION	372491	22042	4444	2895	4488	3863	3723	413946
INFORMATION SERVICES	157395	2647	955	960	2	2929	2186	167074
TESTING & STANDARDIZATION	46130	3261	390	331	178	10	183	50483
FEASIBILITY STUDIES	8370	57650	1138	196	1229	2574	2304	73461
EDUCATIONAL SUPPORT	1787	1887	40487	.	.	4988	792	49941
MUSEUM SERVICES	24749	468	468	702	3511	.	469	30367
ADMIN. EXTRAMURAL RSA	12779	.	.	.	.	.	.	12779
CAPITAL - RSA	61721	.	.	.	.	.	.	61721
SUB TOTAL RSA	685422	87955	47882	5084	9408	14364	9657	859772
TOTAL	2040911	550001	534228	14764	22435	98998	30319	3291656

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY
IN THE NATURAL SCIENCES BY ACTIVITY AND PERFORMER, 1987-88

SCIENCE TYPE NATURAL
AND EAR 1987-88

	PERFORMER							
	INTRAMURAL	CANADIAN INDUSTRY	CANADIAN UNIVERSITY	CANADIAN N P INST	PROV. & MUN. GOVT	FOREIGN PERFORMERS	OTHER PERFORMERS	TOTAL
	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ACTIVITIES								
IN-HOUSE R&D	987097	.	.	.	.	.	.	987097
R&D CONTRACTS	1906	190360	24731	1594	883	8015	11196	239307
SUPPORTING CONTRACTS	62811	.	.	.	.	.	.	62811
R&D GRANTS	.	278733	444711	7706	17434	71942	10032	830558
RESEARCH FELLOWSHIPS	3490	4399	19781	1500	32	8807	409	38418
ADMIN. EXTRAMURAL R&D	86270	.	.	.	.	.	.	86270
CAPITAL - R&D	174091	.	.	.	.	.	.	174091
SUB TOTAL R&D	1315664	473514	489223	10800	18349	89364	21637	2418551
DATA COLLECTION	366446	22877	4536	2852	4725	4101	3747	409284
INFORMATION SERVICES	159937	2540	1003	717	.	2846	2279	169322
TESTING & STANDARDIZATION	48673	2627	402	246	153	10	747	52858
FEASIBILITY STUDIES	7642	66854	846	235	4000	3365	2468	85410
EDUCATIONAL SUPPORT	1724	2005	41851	.	.	5204	199	50983
MUSEUM SERVICES	25502	526	526	790	3949	.	528	31921
ADMIN. EXTRAMURAL RSA	12872	.	.	.	.	.	.	12872
CAPITAL - RSA	69756	.	.	.	.	.	.	69756
SUB TOTAL RSA	692651	97429	49164	4840	12827	15526	9968	882405
TOTAL	2008315	570943	538387	15640	31176	104890	31605	3300956

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

CIENCE TYPE NATURAL
ND ACTIVITY TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-ADM	6643	.	6643	6593	.	6593	6800	.	6800
	AGR-FOR	64351	12652	77003	71283	12824	84107	69385	10282	79667
	AGR-CGC	6219	3	6222	7510	5	7515	7835	5	7840
	AGR-DEV	270049	12730	282779	263821	11708	275529	260990	10025	271015
	AGR-RI	27247	136	27383	24085	214	24299	22115	150	22265
	AGR-GO	67	1721	1788	.	.	.	.	.	.
	TOTAL	374575	27242	401817	373291	24751	398042	367126	20462	387590
AECB	AECB	783	1944	2727	960	3100	3960	902	3243	4145
AECL	AECL	125750	14342	140092	133445	21887	155332	124961	16925	141886
CMHC	CMHC	1927	1784	3711	2114	2031	4145	2126	2039	4165
CIDA	CIDA	961	44270	45231	1073	47243	48316	1188	61605	62793
COMM	COMM-CC	44412	31835	76247	38776	25911	64687	37767	11612	49379
CCA	CCA-CCR	13770	.	13770	14097	.	14097	16618	.	16618
	TOTAL	13770	.	13770	14097	.	14097	16618	.	16618
EMR	EMR-ENER	4315	49456	53771	4097	37218	41315	4211	40234	44445
	EMR-MES	270696	42721	313417	270377	48177	318554	269773	50807	319580
	TOTAL	275012	92177	367189	274474	85395	359869	272984	91041	364025
ENV	ENV-ADM	675	399	1074	841	422	1263	829	490	1319
	ENV-AES	220667	7972	228639	252470	8466	260936	253502	8891	262393
	ENV-CGP	84473	11970	96443	87576	13235	100811	92854	13812	106666
	ENV-PC	6067	977	7044	6322	1016	7338	6541	1056	7597
	TOTAL	311882	21318	333200	347210	23139	370349	353726	24249	377975
F&O	F&O-FM	232438	16963	249401	209645	16617	225262	183395	14379	197774
IAND	IAND-NA	1564	2824	4388	1775	2946	4721	1532	2592	4124
IDRC	IDRC	7172	32828	40000	8015	36680	44695	8559	39167	47726
IJC	IJC	3232	98	3330	3530	127	3657	3766	120	3886
MRC	MRC	3902	157700	161602	4039	164239	168278	4182	167873	172055
NCC	NCC	317	197	514	390	164	554	390	160	550
NDEF	NDEF-SER	123575	87155	210730	134418	85616	220034	135213	107885	243098
NEB	NEB	367	.	367	397	.	397	407	.	407
NFB	NFB	1219	.	1219	1123	.	1123	1150	.	1150
NHW	NHW-HP	67693	2685	70378	71445	2643	74088	79573	2651	82224
	NHW-HSS	749	10813	11562	809	12649	13459	1053	12820	13873
	NHW-MS	2369	.	2369	2568	.	2568	2546	.	2546
	TOTAL	70811	13498	84309	74822	15292	90114	83172	15271	98443
NMC	NMC	29974	5555	35529	32636	5793	38429	35920	6515	42507
NRC	NRC-SIR	250235	146774	397069	319069	145477	464546	308262	141118	449380
	NRC-STI	26764	78	26842	.	.	.	.	.	.

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TABLE 29

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND ACTIVITY TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NRC	TOTAL	277058	146852	423910	319069	145477	464546	308262	141118	449380
NSERC	NSERC	12326	298976	311302	13990	306750	320740	12949	318738	331687
PW	PW-PTS	2685	2199	4884	2655	3625	6280	2701	3560	6261
RIE	RIE	26541	172676	199217	30644	186380	217024	32339	193780	226119
RCMP	RCMP	95	516	611	133	567	700	245	460	705
ST	ST	1273	3518	4791	1005	7480	8485	1090	14804	15894
SECS	SECS-ES	21	6082	6103	.	4685	4685	.	.	.
	TOTAL	21	6082	6103	.	4685	4685	.	.	.
SS	SS-SUPP	187	14798	14985	192	13680	13872	198	12700	12898
TPT	TPT-ADM	5855	17328	23183	5767	17868	23635	5788	17947	23735
	TPT-AIR	3940	806	4746	4222	828	5050	4411	1426	5837
	TPT-MAR	3523	3871	7394	6732	1662	8394	4775	2150	6925
	TPT-SUR	359	794	1153	370	812	1182	398	820	1218
	TOTAL	13677	22799	36476	17091	21170	38261	15372	22343	37715
TOTAL	TOTAL	1957506	1220146	3177652	2040911	1250745	3291656	2008315	1292641	3300956

FEDERAL INTRAMURAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-ADM	.	6643	6643	.	6593	6593	.	6800	6800
	AGR-FOR	57004	7347	64351	62589	8694	71283	61910	7475	69385
	AGR-CGC	3076	3143	6219	3956	3552	7510	3896	3938	7835
	AGR-DEV	267400	2649	270049	261158	2663	263821	258502	2488	260990
	AGR-RI	14376	12871	27247	13122	10963	24085	9420	12695	22115
	AGR-GC	67	.	67	.	.	.	.	.	.
	TOTAL	341923	32653	374575	340827	32464	373291	333729	33399	367128
AECB	AECB	770	13	783	840	20	860	881	21	902
AECL	AECL	117404	8346	125750	124318	9127	133445	115611	9350	124961
CMHC	CMHC	989	938	1927	1089	1025	2114	1101	1025	2126
CIDA	CIDA	337	624	961	375	697	1073	416	772	1188
COMM	COMM-CC	37129	7283	44412	32911	5865	38776	31914	5553	37767
CCA	CCA-COR	.	13770	13770	.	14097	14097	.	16618	16618
	TOTAL	.	13770	13770	.	14097	14097	.	16618	16618
EMR	EMR-ENER	1936	2379	4315	1324	2773	4097	1611	2600	4211
	EMR-MES	194945	75751	270696	192256	78121	270377	193412	75361	268773
	TOTAL	196882	78130	275012	193580	80894	274474	195024	77960	272984
ENV	ENV-ADM	643	32	675	806	35	841	795	34	829
	ENV-AES	17998	202669	220667	19156	233315	252470	20023	233480	253502
	ENV-C&P	29159	55314	84473	29771	57805	87575	31777	61078	92854
	ENV-PC	74	5993	6067	77	6245	6322	80	6461	6541
	TOTAL	47874	264008	311882	49811	297400	347210	52674	301052	353726
F&O	F&O-FM	137871	94567	232438	124093	85552	209645	103119	80276	183395
IAND	IAND-NA	1256	308	1564	1437	338	1775	1188	344	1532
IDRC	IDRC	6533	639	7172	7300	715	8015	7795	764	8559
IJC	IJC	.	3232	3232	.	3530	3530	.	3766	3766
MRC	MRC	3746	156	3902	3873	166	4039	4015	167	4182
NCC	NCC	.	317	317	.	390	390	.	390	390
NDEF	NDEF-SER	121641	1934	123575	132407	2011	134418	132505	2708	135213
NEB	NEB	.	367	367	.	397	397	.	407	407
NFB	NFB	746	473	1219	633	290	1123	860	290	1150
NHW	NHW-HP	15056	52637	67693	14879	56566	71445	17755	61818	79573
	NHW-HSS	470	277	745	510	299	809	663	390	1053
	NHW-MS	443	1926	2369	581	1987	2568	575	1971	2546
	TOTAL	15970	54841	70811	15971	58852	74822	18993	64179	83172
NMC	NMC	3756	26218	29974	3856	28780	32636	4316	31676	35992
NRC	NRC-SIR	231896	18399	250295	263809	55260	319069	253969	54293	308262
	NRC-STI	.	26764	26764	.	.	.	.	.	.

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FEDERAL INTRAMURAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NRC	TOTAL	231896	45163	277058	263809	55260	319069	253969	54293	308262
NSERC	NSERC	10758	1565	12326	12101	1889	13990	11201	1748	12949
PW	PW-PTS	948	1736	2685	707	1948	2655	723	1979	2701
RIE	RIE	26541	.	26541	30644	.	30644	32339	.	32339
RCMP	RCMP	95	.	95	133	.	133	245	.	245
ST	ST	1042	231	1273	823	182	1005	891	199	1090
SECS	SECS-ES	21	.	21	.	.	.	.	.	.
	TOTAL	21	.	21	.	.	.	.	.	.
SS	SS-SUPP	144	43	187	167	25	192	170	28	198
TPT	TPT-ADM	4004	1850	5855	4422	1346	5767	4406	1382	5788
	TPT-AIR	1765	2175	3940	2306	1916	4222	2682	1729	4411
	TPT-MAR	3523	.	3523	6732	.	6732	4775	.	4775
	TPT-SUR	124	235	359	123	247	370	122	276	398
	TOTAL	9416	4261	13677	13583	3509	17091	11985	3387	15372
TOTAL	TOTAL	1315691	641815	1957506	1355489	685422	2040911	1315664	692651	2008315

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES, IN THE INDUSTRY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER CANADIAN INDUSTRY

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	7133	97	7230	7154	106	7260	8121	106	8227
	AGR-OE.	3761	317	4078	2830	221	2851	1473	216	1689
	AGR-OC	1721	.	1721	.	.	.	.	.	.
	TOTAL	12615	614	13229	9784	327	10111	9574	322	9896
AECB	AECB	1006	9	1015	1694	217	1911	1707	223	1930
AECL	AECL	2933	8921	11854	9573	9600	19173	7775	7000	14775
CMHC	CMHC	354	849	1203	205	1009	1214	205	1017	1222
CIDA	CIDA	.	28525	28525	.	29752	29752	.	41866	41866
COMM	COMM-CC	1628	721	17002	14494	554	15048	4704	554	5258
EMR	EMR-ENER	32067	8747	40814	11309	16687	27996	11391	15806	27197
	EMR-MES	12045	11715	23760	14507	11815	26322	13209	13171	26380
	TOTAL	44112	20462	64574	25816	28502	54318	24600	28977	53577
ENV	ENV-ADM	189	100	289	97	.	97	250	.	250
	ENV-AES	2290	700	2990	2473	770	3243	2801	800	3421
	ENV-C&P	3264	1129	4393	3775	1211	4987	3931	1258	5189
	ENV-PC	278	272	550	289	293	572	301	294	595
	TOTAL	6021	2201	8222	6635	2264	8899	7113	2352	9465
F&C	F&O-FM	7989	5784	13773	7568	5919	13487	6204	5415	11619
IAND	IAND-NA	1041	525	1566	840	493	1333	793	243	1036
IDRC	IDRC	29	.	29	32	.	32	34	.	34
IJC	IJC	.	54	54	.	37	37	.	80	80
MRC	MRC	.	25	25	.	.	.	.	.	.
NCC	NCC	.	172	172	.	140	140	.	135	135
NDEF	NDEF-SER	71044	.	71044	71987	.	71987	92006	.	92006
NHW	NHW-HP	528	502	1030	528	358	886	528	358	886
	NHW-HSS	60	100	160	80	200	280	90	200	290
	TOTAL	588	602	1190	608	558	1166	618	558	1176
NMC	NMC	.	449	449	.	469	469	.	529	529
NRC	NRC-SIR	103794	445	104239	101933	463	102396	99601	463	100064
	TOTAL	103794	445	104239	101933	463	102396	99601	463	100064
NSERC	NSERC	3198	1886	5074	4141	1887	6028	4399	2005	6404
PW	PW-PTS	1567	338	1905	1664	1751	3415	1620	1740	3360
RIE	RIE	163019	1193	164212	176150	1280	177430	183150	1330	184480
RCMP	RCMP	398	.	398	472	.	472	385	.	385
SS	SS-SUPP	10709	2817	13526	11180	1490	12670	10300	1435	11735
TPT	TPT-ADM	13620	781	14401	14804	785	15589	15512	685	16197
	TPT-AIR	125	326	451	400	369	769	600	426	1026
	TPT-MAR	3629	108	3737	1662	.	1662	2150	.	2150

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TABLE 3'

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES, IN THE INDUSTRY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ALL YEAR AMER COMMERCIAL INDUSTR

		YEAR								
		'987-88			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
TPT	TPT-SUP	335	87	462	384	7[illegible]	454	464	77	541
	TOTAL	17769	1282	19051	17270	1204	18474	16726	1188	19914
TOTAL	TOTAL	464457	77874	542331	462046	87955	550001	473514	97429	570943

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES, IN THE UNIVERSITY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	4149	194	4337	4090	110	4200	1525	10	1535
	AGR-DEV	5558	315	5873	5799	504	6302	5443	507	5950
	AGR-RI	190	.	190	214	.	214	150	.	150
	TOTAL	9897	509	10346	10104	614	10716	7118	517	7635
AECB	AECB	173	.	173	381	.	381	391	.	391
AECL	AECL	1093	28	1121	1335	125	1500	1300	150	1450
CMHC	CMHC	253	22	275	453	15	468	453	15	468
CIDA	CIDA	.	650	650	.	879	879	.	954	954
COMM	COMM-CC	2453	11	2464	1143	.	1143	1134	.	1134
EMR	EMR-ENER	514	723	1237	1507	736	2243	672	513	1185
	EMR-MES	4613	325	4938	4303	307	4610	4258	260	4518
	TOTAL	5127	1048	6175	5810	1043	6853	4930	973	5703
ENV	ENV-ADM	91	.	91	280	20	300	200	.	200
	ENV-AES	840	90	930	956	100	1056	1044	120	1164
	ENV-C&P	589	172	761	1430	181	1611	1471	189	1660
	ENV-PC	68	8	76	71	8	79	74	8	82
	TOTAL	1588	270	1858	2737	309	3046	2789	317	3105
F&O	F&O-FM	1656	193	1849	1645	171	1816	1375	267	1642
IAND	IAND-NA	698	.	698	701	.	701	560	.	560
IDRC	IDRC	1828	339	1861	1819	260	2079	1942	276	2218
IJC	IJC	.	.	.	.	18	18	.	.	.
MRC	MRC	146951	5321	152272	152245	5607	157852	155593	5826	161521
NDEF	NDEF-SER	7575	.	7575	7963	.	7963	8053	.	8053
NHW	NHW-HP	336	217	553	336	318	654	336	326	662
	NHW-HSS	4128	2952	7080	4750	3196	7946	4770	3243	8013
	TOTAL	4464	3169	7633	5086	3514	8600	5106	3569	8675
NMC	NMC	.	449	449	.	469	468	.	526	526
NRC	NRC-SIR	30417	134	30551	29996	139	30135	27996	139	28135
	TOTAL	30417	134	30551	29996	139	30135	27996	139	28135
NSERC	NSERC	254972	31665	286637	258246	33863	292109	268045	35023	303068
PW	PW-PTS	73	12	85	60	.	60	60	.	60
RIE	RIE	731	.	731	740	.	740	770	.	770
RCMP	RCMP	.	.	.	20	.	20	.	.	.
SECS	SECS-ES	4929	1133	6062	4110	575	4685	.	.	.
	TOTAL	4929	1133	6062	4110	575	4685	.	.	.
SS	SS-SUPP	598	315	913	600	285	885	570	270	840
TPT	TPT-ADM	850	189	1039	801	185	986	550	140	690
	TPT-AIR	.	15	15	.	14	14	300	.	300

CONTINUED

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES, IN THE UNIVERSITY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ALL PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
TPT	TPT-MAR	93	.	93	.	.	.	.	.	.
	TPT-SUR	297	.	297	291	.	291	188	.	188
	TOTAL	1240	204	1444	1092	199	1291	1038	140	1178
TOTAL	TOTAL	476466	45356	521822	486346	47882	534228	489223	49164	538387

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES, IN THE NON-PROFIT INSTITUTE SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NAT. SCI.
ANY PERFORMER CANADIAN N + INST

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	40	7	47	67	14	81	120	14	134
	AGR-OE	1059	5	1058	1012	11	1023	936	10	946
	TOTAL	1099	12	1105	1079	25	1104	1056	24	1080
AECB	AECB	29	3	32	1	33	34	.	37	37
CMHC	CMHC	66	22	88	60	23	83	60	23	83
EMR	EMR-ENER	233	50	283	290	351	651	254	127	381
	EMR-MES	76	43	119	451	88	539	68	.	68
	TOTAL	309	93	402	741	449	1190	322	127	449
ENV	ENV-ADM	.	15	15	25	.	25	30	.	30
	ENV-AES	13	146	159	13	80	93	13	90	103
	ENV-C&P	36	1747	1783	152	1535	1687	155	1605	1760
	TOTAL	49	1908	1957	190	1615	1795	198	1695	1893
F&O	F&O-FM	9	141	150	9	144	153	9	171	180
IAND	IAND-NA	117	2	119	90	126	216	100	70	170
IDRC	IDRC	264	15	279	295	17	312	315	18	333
MRC	MRC	200	252	452	200	337	537	200	350	550
NHW	NHW-HP	90	64	156	90	68	157	90	68	157
	NHW-HSS	2439	934	3370	2850	1235	4085	2800	1187	3987
	TOTAL	2529	998	3526	2942	1300	4242	2892	1252	4144
NMC	NMC	.	673	673	.	702	702	.	790	790
NRC	NRC-SUP	669	.	669	687	78	765	687	78	765
	NRC-STI	.	78	78	.	.	.	.	.	.
	TOTAL	669	78	747	687	78	765	687	78	765
NSERC	NSERC	144	.	144	146	.	146	151	.	151
PW	PW-PTS	60	20	80	50	20	70	40	20	60
RIE	RIE	2604	3	2607	2770	.	2770	2880	.	2880
RCMP	RCMP	12	.	12	.	.	.	.	.	.
ST	ST	.	.	.	.	.	.	1500	.	1500
SECS	SECS-ES	20	.	20	.	.	.	.	.	.
	TOTAL	20	.	20	.	.	.	.	.	.
SS	SS-SUPP	.	88	88	90	35	125	90	35	125
TPT	TPT-ADM	741	192	933	330	150	480	250	150	400
	TPT-SUP	.	.	.	30	.	30	50	.	50
	TOTAL	741	192	933	330	150	480	300	150	450
TOTAL	TOTAL	8914	4500	13414	9680	5084	14764	10800	4840	15640

TABLE 34

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY
IN THE NATURAL SCIENCES, IN THE PROVINCIAL AND MUNICIPAL
GOVERNMENT SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY,
1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ANL PERFORMER PROV + MUN. GOVT

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	59	.	59	79	2	81	5	.	5
	AGR-DEV	40	3	43	28	2	30	30	2	32
	TOTAL	99	3	102	107	4	111	35	2	37
AECB	AECB	62	.	62	31	.	31	34	.	34
CMHC	CMHC	10	.	10	10	.	10	10	.	10
EMR	EMR-ENER	2553	994	3547	1484	1054	2538	1800	3850	5650
	EMR-MES	61	23	84	53	.	53	9	.	9
	TOTAL	2614	1017	3631	1537	1054	2591	1809	3850	5659
ENV	ENV-AES	.	90	90	.	100	100	.	110	110
	ENV-C&P	285	3231	3516	204	3663	3867	206	3850	4056
	TOTAL	285	3321	3606	204	3763	3967	206	3960	4166
F&O	F&O-FM	170	.	170	170	.	170	30	.	30
IAND	IAND-NA	.	412	412	.	666	666	.	706	706
IJC	IJC	.	10	10	.	.	.	.	.	.
MRC	MRC	10	.	10	26	.	26	32	.	32
NCC	NCC	.	2	2	.	.	.	.	.	.
NHW	NHW-HP	120	10	130	120	10	130	120	10	130
	NHW-HSS	203	.	203	288	50	338	280	50	330
	TOTAL	323	10	333	408	60	468	400	50	460
NMC	NMC	.	3367	3367	.	3511	3511	.	3949	3949
NRC	NRC-SIR	190	.	190	198	.	198	198	.	198
	TOTAL	190	.	190	138	.	198	198	.	198
RIE	RIE	4495	.	4495	4800	.	4800	5000	.	5000
ST	ST	1394	.	1394	5286	.	5286	10345	.	10345
TPT	TPT-ADM	192	352	544	250	350	600	250	300	550
	TOTAL	192	352	544	250	350	600	250	300	550
TOTAL	TOTAL	9844	8494	18338	13027	9408	22435	18349	12827	31176

TABLE 35

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES, IN THE FOREIGN SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
R&D PERFORMER FOREIGN PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	262	.	262	308	.	308	307	.	307
	AGR-OOC	.	3	3	.	5	5	.	5	5
	AGR-DEV	659	.	659	824	.	824	829	.	829
	TOTAL	921	3	924	1132	5	1137	1136	5	1141
AECB	AECB	568	.	568	562	5	567	699	5	704
AECL	AECL	280	.	280	390	.	390	200	.	200
CIDA	CIDA	15095	.	15095	16772	.	16772	18785	.	18785
COMM	COMM-CC	12369	.	12369	9720	.	9720	5220	.	5220
EMR	EMR-ENER	356	55	411	300	.	300	700	.	700
	EMR-MES	8025	3256	11281	7695	3682	11377	9952	3939	13891
	TOTAL	8381	3311	11692	7995	3682	11677	10652	3939	14591
ENV	ENV-AES	.	720	720	.	738	738	.	738	738
	ENV-C&P	23	42	65	32	39	71	33	41	74
	TOTAL	23	762	785	32	777	809	33	779	812
F&O	F&O-FM	395	27	422	406	29	435	406	29	435
IDRC	IDRC	28015	2385	30400	31303	2665	33968	33426	2946	36372
IJC	IJC	.	11	11	.	57	57	.	20	20
MRC	MRC	4517	62	4579	5122	264	5386	5301	69	5370
NDEF	NDEF-SER	6992	.	6992	4741	.	4741	6901	.	6901
NHA	NHA-HP	272	85	357	272	85	357	272	85	357
	TOTAL	272	85	357	272	85	357	272	85	357
NRC	NRC-SIR	3236	.	3236	3572	.	3572	3545	.	3545
	TOTAL	3236	.	3236	3572	.	3572	3545	.	3545
NSERC	NSERC	2296	4317	6613	2540	4601	7141	2658	4790	7448
PW	PW-PTS	43	13	56	30	.	30	30	.	30
ST	ST	.	2124	2124	.	2194	2194	.	2959	2959
TPT	TPT-ADM	179	4	183	.	.	.	.	.	.
	TPT-AIR	340	.	340	45	.	45	100	.	100
	TPT-MAR	10	.	10	.	.	.	.	.	.
	TOTAL	529	4	533	45	.	45	100	.	100
TOTAL	TOTAL	83932	13104	97036	84634	14364	98998	89364	15526	104890

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES, IN THE OTHER SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE: NATURAL
ALL PERFORMER: OTHER PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	137	580	717	287	605	892	94	.	94
	AGR-DEV	713	106	819	475	203	678	379	200	579
	TOTAL	850	716	1536	762	808	1570	473	200	673
AECB	AECB	80	14	94	96	80	176	107	40	147
AECL	AECL	1087	.	1087	804	.	804	500	.	500
CMHC	CMHC	154	54	208	182	74	256	182	74	256
EMR	EMR-ENER	1945	1219	3164	1500	1990	3490	2352	2769	5121
	EMR-MES	2354	185	2539	5026	250	5276	5769	172	5941
	TOTAL	4299	1404	5703	6526	2240	8766	8121	2941	11062
ENV	ENV-ADM	.	4	4	.	.	.	.	.	.
	ENV-AES	240	2843	3083	260	2976	3236	275	3080	3355
	ENV-C&P	826	626	1452	314	708	1022	329	744	1073
	ENV-PC	324	27	351	337	28	365	350	29	379
	TOTAL	1390	3500	4890	911	3712	4623	954	3853	4807
F&O	F&O-FM	319	280	599	315	241	556	248	225	473
IAND	IAND-NA	.	29	29	.	30	30	.	20	20
IDRC	IDRC	197	62	259	220	69	289	235	75	310
IJC	IJC	.	23	23	.	17	17	.	20	20
MRC	MRC	.	362	362	.	438	438	.	400	400
NCC	NCC	.	23	23	.	24	24	.	25	25
NDEF	NDEF-SER	1544	.	1544	925	.	925	925	.	925
NHW	NHW-HP	247	212	459	247	212	459	247	212	459
	TOTAL	247	212	459	247	212	459	247	212	459
NMC	NMC	168	449	617	178	466	644	197	527	724
NRC	NRC-SIR	7879	10	7889	8400	11	8411	8400	11	8411
	TOTAL	7879	10	7889	8400	11	8411	8400	11	8411
NSERC	NSERC	370	138	508	395	931	1326	413	1054	1467
PW	PW-PTS	72	1	73	50	.	50	50	.	50
RIE	RIE	400	231	631	400	240	640	400	250	650
RCMP	RCMP	106	.	106	75	.	75	75	.	75
SS	SS-SUPP	226	45	271	.	.	.	.	.	.
TPT	TPT-ADM	195	33	228	178	25	203	110	.	110
	TPT-MAR	.	31	31	.	.	.	.	.	.
	TPT-SUR	.	35	35	.	37	37	.	41	41
	TOTAL	195	99	294	178	62	240	110	41	151
TOTAL	TOTAL	19559	7652	27205	20652	9657	30319	21637	9968	31605

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ALL PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-ADM	.	6643	6643	.	6593	6593	.	6802	6802
	AGR-FOR	68746	8255	77003	74578	9531	84107	72060	7605	79667
	AGR-CGC	3075	3146	6222	3956	3557	7515	3896	3943	7840
	AGR-DEV	279184	3595	282779	271925	3604	275529	267592	3423	271015
	AGR-RI	14512	12871	27383	13336	10963	24299	9570	12695	22265
	AGR-GO	1788	.	1788	.	.	.	.	.	.
	TOTAL	367308	34510	401817	363795	34247	398042	353121	34469	387590
AECB	AECB	2688	39	2727	3605	355	3960	3813	325	4145
AECL	AECL	122797	17295	140092	136480	18852	155332	125386	16500	141886
CMHC	CMHC	1826	1885	3711	1999	2146	4145	2011	2154	4165
CIDA	CIDA	15432	29799	45231	17148	31168	48316	19201	43592	62793
COMM	COMM-CC	68232	8015	76247	58268	6419	64687	42572	6407	49379
CCA	CCA-COR	.	13770	13770	.	14097	14097	.	16619	16619
	TOTAL	.	13770	13770	.	14097	14097	.	16619	16619
EMR	EMR-ENER	39604	14167	53771	17714	23601	41315	18580	25765	44345
	EMR-MES	222119	91298	313417	224291	94263	318554	226677	92903	319580
	TOTAL	261724	105465	367189	242005	117864	359869	245258	118667	364025
ENV	ENV-ADM	923	151	1074	1208	55	1263	1285	34	1319
	ENV-AES	21381	207258	228639	22858	238079	260936	23976	238418	262393
	ENV-C&P	34182	62261	96443	35673	65130	100811	37900	68765	106666
	ENV-PC	744	6300	7044	774	6554	7328	805	6792	7597
	TOTAL	57230	275970	333200	60520	309830	370349	63967	314008	377975
F&O	F&O-FM	148419	100982	249401	134206	92056	226262	111391	86383	197774
IAND	IAND-NA	3112	1276	4388	3068	1653	4721	2741	1383	4124
IDRC	IDRC	36666	3334	40000	40969	3726	44695	43747	3979	47726
IJC	IJC	.	3330	3330	.	3657	3657	.	3886	3886
MRC	MRC	155424	6178	161602	161466	6812	168278	165141	6914	172055
NCC	NCC	.	514	514	.	554	554	.	550	550
NDEF	NDEF-SER	208796	1934	210730	218023	2011	220034	240390	2708	243098
NEB	NEB	.	367	367	.	397	397	.	407	407
NFB	NFB	746	473	1219	833	290	1123	860	290	1150
NHW	NHW-HP	16651	53727	70378	16474	57614	74088	19350	62874	82224
	NHW-HSS	7299	4263	11562	8478	4980	13458	9603	5070	14673
	NHW-MS	443	1926	2369	581	1987	2568	575	1971	2546
	TOTAL	24392	59917	84309	25534	64581	90114	29528	69915	99443
NMC	NMC	3924	31605	35529	4032	34397	38429	4513	37994	42507
NRC	NRC-SIR	378081	18988	397069	408595	55951	464546	394396	54984	449380
	NRC-STI	.	26842	26842	.	.	.	.	.	.

(CONTINUED)

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NRC	TOTAL	378087	45830	423910	408595	55951	464546	394396	54984	449380
NSERC	NSERC	271731	39571	311302	277569	43171	320740	285867	44820	331687
PW	PW-PTS	2763	2120	4884	2561	3719	6280	2523	3739	6261
RIE	RIE	197790	1427	199217	215504	1520	217024	224539	1580	226119
RCMP	RCMP	611	.	611	700	.	700	705	.	705
ST	ST	2436	2355	4791	6109	2376	8485	12736	3158	15894
SECS	SECS-ES	4970	1133	6103	4110	575	4685	.	.	.
	TOTAL	4970	1133	6103	4110	575	4685	.	.	.
SS	SS-SUPP	11677	3308	14985	12037	1835	13872	11130	1768	12898
TPT	TPT-ADM	19781	3401	23183	20775	2861	23635	21078	2657	23735
	TPT-AIR	2230	2516	4746	2751	2299	5050	3682	2155	5837
	TPT-MAR	7255	139	7394	8394	.	8394	6925	.	6925
	TPT-SUR	816	337	1153	828	354	1182	824	394	1218
	TOTAL	30082	6394	36476	32748	5514	38261	32509	5206	37715
TOTAL	TOTAL	2378857	798795	3177652	2431884	859772	3291656	2418551	882405	3300956

TABLE 38

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES BY PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ARC ACTIVITY R&D

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	1315691	55	1355489	56	1315664	54
CANADIAN INDUSTRY	464457	20	462046	19	473514	20
CANADIAN UNIVERSITY	476466	20	486346	20	489223	20
CANADIAN N P INST	8914	0	9680	0	10800	0
PROV. & MUN. GOV'T	9844	0	13027	1	18349	1
FOREIGN PERFORMERS	83932	4	84634	3	89364	4
OTHER PERFORMERS	19553	1	20662	1	21637	1
TOTAL	2376857	100	2431884	100	2418551	100

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND ACTIVITY R&D

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	57004	11744	68748	62589	11987	74576	61910	10152	72062
	AGR-CGC	3076	.	3076	3958	.	3958	3895	.	3896
	AGR-DEV	267400	11784	279184	261158	10767	271925	258502	9090	267592
	AGR-RI	14376	136	14512	13122	214	13336	9420	150	9570
	AGR-GO	67	1721	1788	.	.	.	.	.	.
	TOTAL	341923	25385	367308	340827	22968	363795	333729	19392	353121
AECB	AECB	770	1918	2688	840	2765	3605	881	2938	3819
AECL	AECL	117404	5393	122797	124318	12162	136480	115611	9775	125386
CMHC	CMHC	989	837	1826	1089	910	1999	1101	910	2011
CIDA	CIDA	337	15095	15432	376	16772	17148	416	18785	19201
COMM	COMM-CC	37129	31103	68232	32911	25357	58268	31914	11058	42972
EMR	EMR-ENER	1936	37668	39604	1324	16390	17714	1611	17069	18680
	EMR-MES	194945	27174	222119	192256	32035	224291	193412	33265	226677
	TOTAL	196882	64842	261724	193580	48425	242005	195024	50334	245358
ENV	ENV-ADM	643	280	923	806	402	1208	795	490	1285
	ENV-AES	17998	3383	21381	19156	3702	22858	20023	3953	23976
	ENV-C&P	29159	5023	34182	29771	5908	35679	31777	6125	37902
	ENV-PC	74	670	744	77	697	774	80	725	805
	TOTAL	47874	9356	57230	49811	10709	60520	52674	11293	63967
F&O	F&O-FM	137871	10548	148419	124093	10113	134206	103119	8272	111391
IAND	IAND-NA	1256	1856	3112	1437	1631	3068	1188	1553	2741
IDRC	IDRC	6533	30133	36666	7300	33669	40969	7795	35952	43747
MRC	MRC	3746	151678	155424	3873	157593	161466	4015	161126	165141
NDEF	NDEF-SER	121641	87155	208796	132407	85616	218023	132505	107885	240390
NFB	NFB	746	.	746	833	.	833	860	.	860
NHW	NHW-HP	15056	1595	16651	14879	1595	16474	17755	1595	19350
	NHW-HSS	472	6827	7299	510	7968	8478	663	7940	8603
	NHW-MS	443	.	443	581	.	581	575	.	575
	TOTAL	15970	8422	24392	15971	9563	25534	18993	9535	28528
NMC	NMC	3756	168	3924	3856	176	4032	4316	197	4513
NRC	NRC-SIR	231896	146185	378081	263809	144786	408595	253969	140427	394396
	TOTAL	231896	146185	378081	263809	144786	408595	253969	140427	394396
NSERC	NSERC	10761	260970	271731	12101	265468	277569	11201	275666	286867
PW	PW-PTS	948	1815	2763	707	1854	2561	723	1800	2523
RIE	RIE	26541	171249	197790	30644	184860	215504	32339	192200	224539
RCMP	RCMP	95	516	611	133	567	700	245	460	705
ST	ST	1042	1394	2436	823	5286	6109	891	11845	12736
SECS	SECS-ES	21	4949	4970	.	4110	4110	.	.	.

(CONTINUED)

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND ACTIVITY R&D

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SECS	TOTAL	21	4949	4970	.	4110	4110	.	.	.
SS	SS-SUPP	144	11533	11677	167	11870	12037	170	10960	11130
TPT	TPT-ADM	4004	15777	19781	4422	16353	20775	4406	16672	21078
	TPT-AIR	1765	465	2230	2306	445	2751	2682	1000	3682
	TPT-MAR	3523	3732	7255	6732	1662	8394	4775	2150	6925
	TPT-SUR	124	692	816	123	705	828	122	702	824
	TOTAL	9416	20666	30082	13583	19165	32748	11985	20524	32509
TOTAL	TOTAL	1315691	1063165	2378857	1355489	1076395	2431884	1315664	1102887	2418551

FEDERAL INTRAMURAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	26	.	56978	598	3	61988	135	.	61776
	AGR-CGC	.	.	3076	.	.	3958	.	.	3896
	AGR-DEV	1181	.	266219	1248	.	259909	1333	.	257169
	AGR-RI	.	.	14376	.	.	13122	.	.	9420
	AGR-GO	.	.	67	.	.	.	.	.	.
	TOTAL	1206	.	340716	1847	3	338978	1468	.	332261
AECB	AECB	.	.	770	.	.	840	.	.	881
AECL	AECL	585	100	116719	636	150	123532	650	125	114836
CMHC	CMHC	.	.	989	.	.	1089	.	.	1101
CIDA	CIDA	.	.	337	.	.	376	.	.	416
COMM	COMM-CC	65	986	36078	92	915	31905	90	904	30919
EMR	EMR-ENER	.	673	1264	.	655	669	.	797	815
	EMR-MES	242	.	194703	215	.	192041	.	.	193412
	TOTAL	242	673	195967	215	655	192710	.	797	194227
ENV	ENV-ADM	.	.	643	.	.	806	.	.	795
	ENV-AES	351	.	17648	382	.	18774	406	.	19616
	ENV-C&P	73	.	29086	73	.	29698	74	.	31703
	ENV-PC	.	74	.	.	77	.	.	80	.
	TOTAL	424	74	47377	455	77	49279	480	80	52114
F&O	F&O-FM	961	.	136910	593	.	123499	608	.	102511
IAND	IAND-NA	.	.	1256	.	.	1437	.	.	1188
IDRC	IDRC	.	.	6533	.	.	7300	.	.	7795
MRC	MRC	.	.	3746	.	.	3873	.	.	4015
NDEF	NDEF-SER	.	.	121641	.	.	132407	.	.	132505
NFB	NFB	.	.	746	.	.	833	.	.	660
NHW	NHW-HP	187	.	14869	186	.	14693	193	.	17561
	NHW-HSS	.	.	472	.	.	510	.	.	663
	NHW-MS	.	.	443	.	.	581	.	.	575
	TOTAL	187	.	15783	195	.	15784	193	.	18800
NMC	NMC	.	.	3756	.	.	3856	.	.	4316
NRC	NRC-SIR	.	.	231896	.	.	263809	.	.	253969
	TOTAL	.	.	231896	.	.	263809	.	.	253969
NSERC	NSERC	.	.	10761	.	.	12101	.	.	11201
PW	PW-PTS	.	.	948	.	.	707	.	.	723
RIE	RIE	.	.	26541	.	.	30644	.	.	32339
RCMP	RCMP	.	.	95	.	.	133	.	.	245
ST	ST	.	.	1042	.	.	823	.	.	891
SECS	SECS-ES	.	.	21	.	.	.	.	.	.

(CONTINUED)

FEDERAL INTRAMURAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SECS	TOTAL	.	.	21	.	.	.	.	.	.
SS	SS-SUPP	.	.	144	.	.	157	.	.	170
TPT	TPT-ADM	.	.	4004	.	.	4422	.	.	4406
	TPT-AIR	.	.	1765	.	.	2306	.	.	2682
	TPT-MAR	.	.	3523	.	.	6732	.	.	4775
	TPT-SUR	.	.	124	.	.	123	.	.	122
	TOTAL	.	.	9416	.	.	13583	.	.	11985
TOTAL	TOTAL	3571	1832	1310186	4024	1800	1349665	3490	1306	1310269

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES, IN THE INDUSTRY SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER CANADIAN INDUSTRY

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	6011	1122	.	6579	575	.	6829	1272	.
	AGR-DEV	387	3374	.	503	2127	.	600	873	.
	AGR-GC	1721	.	.	.	.	.	.	.	.
	TOTAL	8119	4496	.	7082	2702	.	7429	2145	.
AECB	AECB	.	1006	.	.	1694	.	.	1707	.
AECL	AECL	.	2933	.	.	9573	.	.	7775	.
CMHC	CMHC	.	354	.	163	42	.	163	42	.
COMM	COMM-CC	1303	14978	.	11211	3283	.	1853	2851	.
EMR	EMR-ENER	30065	2002	.	8769	2540	.	8697	2694	.
	EMR-MES	20	12025	.	20	14487	.	20	13189	.
	TOTAL	30085	14027	.	8789	17027	.	8717	15883	.
ENV	ENV-ADM	.	189	.	.	97	.	.	260	.
	ENV-AES	.	2290	.	.	2473	.	.	2521	.
	ENV-C&P	.	3264	.	.	3776	.	.	3931	.
	ENV-PC	.	278	.	.	289	.	.	301	.
	TOTAL	.	6021	.	.	6635	.	.	7113	.
F&O	F&O-FM	815	7173	.	690	6878	.	.	6204	.
IAND	IAND-NA	.	104	.	50	750	.	50	743	.
IDRC	IDRC	29	.	.	32	.	.	34	.	.
NDEP	NDEP-SER	.	71044	.	.	71987	.	.	92006	.
NHW	NHW-HP	.	528	.	.	528	.	.	528	.
	NHW-HSS	60	.	.	80	.	.	90	.	.
	TOTAL	60	528	.	80	528	.	90	528	.
NRC	NRC-SIR	73291	30503	.	69560	32373	.	74847	24754	.
	TOTAL	73291	30503	.	69560	32373	.	74847	24754	.
NSERC	NSERC	3188	.	.	4141	.	.	4399	.	.
PW	PW-PTS	.	1567	.	.	1664	.	.	1620	.
RIE	RIE	163019	.	.	176150	.	.	183150	.	.
RCMP	RCMP	.	398	.	.	472	.	.	385	.
SS	SS-SUPP	.	10709	.	.	11180	.	.	10300	.
TPT	TPT-ADM	.	13620	.	1430	13394	.	2400	13112	.
	TPT-AIR	.	125	.	.	400	.	.	600	.
	TPT-MAR	.	3629	.	.	1662	.	.	2150	.
	TPT-SUR	.	395	.	.	384	.	.	464	.
	TOTAL	.	17769	.	1430	15840	.	2400	16326	.
TOTAL	TOTAL	279910	184547	.	279378	182668	.	283132	190382	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES, IN THE UNIVERSITY SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ANL PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	2413	1730	.	2335	1757	.	.	1525	.
	AGR-OE.	2457	3101	.	3825	1973	.	4839	804	.
	AGR-RI	.	136	.	.	214	.	.	150	.
	TOTAL	4870	4967	.	6160	3944	.	4839	2479	.
AECB	AECB	.	173	.	.	381	.	.	391	.
AECL	AECL	.	1093	.	.	1395	.	.	1300	.
CMHC	CMHC	253	.	.	453	.	.	453	.	.
COMM	COMM-CC	114	2339	.	438	705	.	438	596	.
EMR	EMR-ENER	7	507	.	7	1500	.	.	572	.
	EMR-MES	1349	3264	.	1353	2950	.	1353	2905	.
	TOTAL	1356	3771	.	1360	4450	.	1353	3477	.
ENV	ENV-ADM	.	91	.	.	280	.	50	150	.
	ENV-AES	596	244	.	692	264	.	764	280	.
	ENV-C&P	446	143	.	461	969	.	461	1010	.
	ENV-PC	.	68	.	.	71	.	.	74	.
	TOTAL	1042	546	.	1153	1584	.	1275	1514	.
F&O	F&O-FM	630	1036	.	630	1015	.	360	1015	.
IAND	IAND-NA	578	120	.	578	1231	.	578	82	.
IDRC	IDRC	1626	.	.	1619	.	.	1942	.	.
MRC	MRC	146951	.	.	152245	.	.	155593	.	.
NDEF	NDEF-SER	.	7575	.	.	7963	.	.	8053	.
NHW	NHW-HP	.	336	.	.	336	.	.	336	.
	NHW-HSS	4128	.	.	4750	.	.	4770	.	.
	TOTAL	4128	336	.	4750	336	.	4770	336	.
NRC	NRC-SIR	26715	3702	.	26146	3850	.	24146	3850	.
	TOTAL	26715	3702	.	26146	3850	.	24146	3850	.
NSERC	NSERC	254972	.	.	258246	.	.	268045	.	.
PW	PW-PTS	.	73	.	.	60	.	.	60	.
RIE	RIE	731	.	.	740	.	.	770	.	.
RCMP	RCMP	.	.	.	.	20	.	.	.	.
SECS	SECS-ES	4929	.	.	4110	.	.	.	.	.
	TOTAL	4929	.	.	4110	.	.	.	.	.
SS	SS-SUPP	.	598	.	.	600	.	.	572	.
TPT	TPT-ADM	73	777	.	70	731	.	100	450	.
	TPT-AIR	.	.	.	.	.	.	.	300	.
	TPT-MAR	50	43	.	.	.	.	.	.	.
	TPT-SUR	25	272	.	28	263	.	30	158	.
	TOTAL	148	1092	.	98	994	.	130	908	.

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FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES, IN THE UNIVERSITY SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ARC PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
TOTAL	TOTAL	449045	27427	.	458926	27420	.	464492	24731	.

TABLE 43

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES, IN THE NON-PROFIT INSTITUTE SECTOR BY DEPARTMENT AND PAYMENT TYPE , 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER CANADIAN N P INST

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	.	40	.	57	10	.	100	20	.
	AGR-DEV	593	460	.	686	326	.	768	168	.
	TOTAL	593	500	.	743	335	.	868	188	.
AECB	AECB	.	29	.	.	1	.	.	.	.
CMHC	CMHC	63	3	.	60	.	.	60	.	.
EMR	EMR-ENER	10	223	.	90	200	.	.	254	.
	EMR-MES	76	.	.	76	375	.	68	.	.
	TOTAL	86	223	.	166	575	.	68	254	.
ENV	ENV-ADM	.	.	.	.	25	.	.	30	.
	ENV-AES	.	13	.	.	13	.	.	13	.
	ENV-C&P	15	21	.	.	152	.	.	155	.
	TOTAL	15	34	.	.	190	.	.	198	.
F&O	F&O-FM	.	9	.	.	9	.	.	9	.
IAND	IAND-NA	117	.	.	90	.	.	100	.	.
IDRC	IDRC	264	.	.	295	.	.	315	.	.
MRC	MRC	200	.	.	200	.	.	200	.	.
NHW	NHW-HP	15	77	.	15	77	.	15	77	.
	NHW-HSS	2436	.	.	2850	.	.	2800	.	.
	TOTAL	2451	77	.	2865	77	.	2815	77	.
NRC	NRC-SIR	209	460	.	209	478	.	209	478	.
	TOTAL	209	460	.	209	478	.	209	478	.
NSERC	NSERC	144	.	.	146	.	.	151	.	.
PW	PW-PTS	60	.	.	50	.	.	40	.	.
RIE	RIE	2604	.	.	2770	.	.	2880	.	.
RCMP	RCMP	.	12	.	.	.	.	.	.	.
ST	ST	.	.	.	.	.	.	1500	.	.
SECS	SECS-ES	20	.	.	.	.	.	.	.	.
	TOTAL	20	.	.	.	.	.	.	.	.
SS	SS-SUPP	.	.	.	.	90	.	.	90	.
TPT	TPT-ADM	.	741	.	.	300	.	.	250	.
	TPT-SUR	.	.	.	.	30	.	.	50	.
	TOTAL	.	741	.	.	330	.	.	300	.
TOTAL	TOTAL	6826	2088	.	7594	2086	.	9206	1594	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES, IN THE PROVINCIAL AND MUNICIPAL GOVERNMENT SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ING PERFORMER PROV. & MUN. GOV'T

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	.	59	.	.	79	.	.	5	.
	AGR-DEV	.	40	.	.	28	.	.	30	.
	TOTAL	.	99	.	.	107	.	.	35	.
AECB	AECB	.	62	.	.	31	.	.	34	.
CMHC	CMHC	.	10	.	.	10	.	.	10	.
EMR	EMR-ENER	2553	.	.	1484	.	.	1800	.	.
	EMR-MES	32	29	.	53	.	.	9	.	.
	TOTAL	2585	29	.	1537	.	.	1809	.	.
ENV	ENV-C&P	.	285	.	.	204	.	.	206	.
	TOTAL	.	285	.	.	204	.	.	206	.
F&O	F&O-FM	140	30	.	140	30	.	.	30	.
MRC	MRC	10	.	.	26	.	.	32	.	.
NHW	NHW-HP	.	120	.	.	120	.	.	120	.
	NHW-HSS	203	.	.	288	.	.	280	.	.
	TOTAL	203	120	.	288	120	.	280	120	.
NRC	NRC-SIR	.	190	.	.	198	.	.	198	.
	TOTAL	.	190	.	.	198	.	.	198	.
RIE	RIE	4495	.	.	4800	.	.	5000	.	.
ST	ST	1394	.	.	5286	.	.	10345	.	.
TPT	TPT-ADM	.	192	.	.	250	.	.	250	.
	TOTAL	.	192	.	.	250	.	.	250	.
TOTAL	TOTAL	8827	1017	.	12077	950	.	17456	883	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES, IN THE FOREIGN SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER FOREIGN PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOP	172	50	.	183	125	.	182	125	.
	AGR-DEV	659	.	.	824	.	.	829	.	.
	TOTAL	831	50	.	1007	125	.	1011	125	.
AECB	AECB	564	4	.	562	.	.	699	.	.
AECL	AECL	.	280	.	.	390	.	.	200	.
CIDA	CIDA	15095	.	.	16772	.	.	18785	.	.
COMM	COMM-CC	12350	19	.	9700	20	.	5200	20	.
EMR	EMR-ENER	356	.	.	300	.	.	700	.	.
	EMR-MES	7700	325	.	7390	305	.	9577	375	.
	TOTAL	8056	325	.	7690	305	.	10277	375	.
ENV	ENV-C&P	.	23	.	.	32	.	.	33	.
	TOTAL	.	23	.	.	32	.	.	33	.
F&O	F&O-PM	15	380	.	30	376	.	30	376	.
IDRC	IDRC	28015	.	.	31303	.	.	33426	.	.
MRC	MRC	4517	.	.	5122	.	.	5301	.	.
NDEF	NDEF-SER	.	6992	.	.	4741	.	.	6901	.
NHW	NHW-HP	55	217	.	55	217	.	55	217	.
	TOTAL	55	217	.	55	217	.	55	217	.
NRC	NRC-SIR	3007	229	.	3334	238	.	3307	238	.
	TOTAL	3007	229	.	3334	238	.	3307	238	.
NSERC	NSERC	2296	.	.	2540	.	.	2658	.	.
PA	PA-PTS	.	43	.	.	30	.	.	30	.
TPT	TPT-ADM	.	179	.	.	.	.	.	.	.
	TPT-AIR	.	340	.	.	45	.	.	100	.
	TPT-MAR	.	10	.	.	.	.	.	.	.
	TOTAL	.	529	.	.	45	.	.	100	.
TOTAL	TOTAL	74801	9131	.	78115	6519	.	80749	8615	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES, IN THE OTHER SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ARC PERFORMER OTHER PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOF	.	107	.	.	287	.	.	94	.
	AGR-DEV	368	345	.	258	217	.	290	89	.
	TOTAL	368	452	.	258	504	.	290	183	.
AECB	AECB	.	80	.	.	96	.	.	107	.
AECL	AECL	.	1087	.	.	804	.	.	500	.
CMHC	CMHC	.	154	.	27	155	.	27	155	.
EMR	EMR-ENER	.	1945	.	.	1500	.	.	2352	.
	EMR-MES	468	1886	.	341	4685	.	906	4863	.
	TOTAL	468	3831	.	341	6185	.	906	7215	.
ENV	ENV-AES	.	240	.	.	260	.	.	275	.
	ENV-CBP	.	826	.	.	314	.	.	329	.
	ENV-PC	.	324	.	.	337	.	.	350	.
	TOTAL	.	1390	.	.	911	.	.	954	.
F&O	F&O-FM	67	252	.	67	248	.	.	248	.
IDRC	IDRC	197	.	.	220	.	.	235	.	.
NDEF	NDEF-SER	.	1544	.	.	925	.	.	925	.
NHW	NHW-HP	.	247	.	.	247	.	.	247	.
	TOTAL	.	247	.	.	247	.	.	247	.
NMC	NMC	.	168	.	.	176	.	.	197	.
NRC	NRC-SIR	7658	221	.	8170	230	.	8170	230	.
	TOTAL	7658	221	.	8170	230	.	8170	230	.
NSERC	NSERC	370	.	.	395	.	.	413	.	.
PW	PW-PTS	.	72	.	.	50	.	.	50	.
RIE	RIE	400	.	.	400	.	.	400	.	.
RCMP	RCMP	.	106	.	.	75	.	.	75	.
SS	SS-SUPP	.	226	.	.	.	.	.	.	.
TPT	TPT-ADM	.	195	.	.	178	.	.	110	.
	TOTAL	.	195	.	.	178	.	.	110	.
TOTAL	TOTAL	9528	10025	.	9879	10784	.	10441	11196	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-FOR	8622	3148	56978	9752	2836	61968	7248	3041	61778
	AGR-CGC	.	.	3076	.	.	3956	.	.	3898
	AGR-DEV	5645	7320	266219	7344	4671	259909	8459	1964	257169
	AGR-RI	.	136	14376	.	214	13122	.	150	9420
	AGR-GO	1721	.	57	.	.	.	.	.	.
	TOTAL	15987	10604	340716	17097	7721	338978	15705	5155	332261
AECB	AECB	564	1354	770	562	2203	840	699	2039	881
AECL	AECL	585	5493	116719	636	12312	123532	650	9900	114835
CMHC	CMHC	316	52	989	703	207	1089	703	207	1101
CIDA	CIDA	15095	.	337	16772	.	376	16785	.	416
COMM	COMM-CC	13832	18322	36078	21441	4923	31905	7581	4471	30919
EMR	EMR-ENER	32391	5350	1264	10650	6395	669	11197	6659	815
	EMR-MES	9887	17529	194703	9448	22802	192041	11933	21332	193412
	TOTAL	42878	22879	195967	20098	29197	192710	23130	28001	194227
ENV	ENV-ADM	.	280	643	.	402	806	50	440	795
	ENV-AES	947	2787	17648	1074	3010	18774	1170	3189	19616
	ENV-C&P	534	4562	29086	534	5447	29698	535	5664	31703
	ENV-PC	.	744	.	.	774	.	.	805	.
	TOTAL	1481	8373	47377	1608	9633	49279	1755	10098	52114
F&O	F&O-FM	2629	8880	136910	2150	8556	123499	998	7882	102511
IAND	IAND-NA	695	1161	1256	718	913	1437	728	825	1198
IDRC	IDRC	30133	.	6533	33663	.	7300	35952	.	7795
MRC	MRC	151678	.	3746	157593	.	3873	161125	.	4015
NDEF	NDEF-SER	.	87155	121641	.	85616	132407	.	107985	132505
NFB	NFB	.	.	746	.	.	833	.	.	880
NHW	NHW-HP	257	1525	14869	256	1525	14693	263	1525	17561
	NHW-HSS	6827	.	472	7968	.	510	7940	.	663
	NHW-MS	.	.	443	.	.	581	.	.	575
	TOTAL	7084	1525	15783	8224	1525	15784	8203	1525	18800
NMC	NMC	.	168	3756	.	176	3856	.	197	4316
NRC	NRC-SIR	110880	35305	231896	107419	37367	263809	110679	29748	253969
	TOTAL	110880	35305	231896	107419	37367	263809	110679	29748	253969
NSERC	NSERC	260970	.	10761	265468	.	12101	275666	.	11201
PW	PW-PTS	60	1755	948	50	1804	707	40	1760	723
RIE	RIE	171245	.	26541	184860	.	30644	192200	.	32333
RCMP	RCMP	.	516	95	.	567	133	.	460	245
ST	ST	1394	.	1042	5286	.	823	11845	.	891
SECS	SECS-ES	4948	.	21	4110	.	.	.	.	.

(CONTINUED)

TABLE -7

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE NATURAL SCIENCES BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SECS	TOTAL	4949	.	21	4110	.	.	.	.	.
SS	SS-SUPP	.	11533	144	.	11870	167	.	10960	170
TPT	TPT-ADM	73	15704	4004	1500	14853	4422	2500	14172	4406
	TPT-AIR	.	465	1765	.	445	2306	.	1000	2682
	TPT-MAR	50	3682	3523	.	1662	5732	.	2150	4775
	TPT-SUR	25	667	124	28	677	123	30	672	122
	TOTAL	148	20518	9416	1528	17637	13583	2530	17994	11985
TOTAL	TOTAL	832608	236061	1310188	849992	232227	1349665	868976	239307	1310269

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES IN THE NATURAL SCIENCES BY PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND ACTIVITY RSA

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	641815	80	685422	80	692651	78
CANADIAN INDUSTRY	77874	10	87955	10	97429	11
CANADIAN UNIVERSITY	45356	6	47882	6	49164	6
CANADIAN N P INST	4500	1	5084	1	4840	1
PROV. & MUN. GOV'T	8494	1	9408	1	12827	1
FOREIGN PERFORMERS	13104	2	14364	2	15526	2
OTHER PERFORMERS	7652	1	9657	1	9968	1
TOTAL	798795	100	859772	100	882405	100

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES IN THE NATURAL SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND ACTIVITY RSA

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-ADM	6643	.	6643	6593	.	6593	6802	.	6802
	AGR-FOR	7347	908	8255	8694	837	9531	7475	130	7605
	AGR-CGC	3143	3	3146	3552	5	3557	3938	5	3943
	AGR-DEV	2649	946	3595	2663	941	3604	2488	935	3423
	AGR-RI	12871	.	12871	10963	.	10963	12695	.	12695
	TOTAL	32653	1857	34510	32464	1783	34247	33399	1070	34469
AECB	AECB	13	26	39	20	335	355	21	305	326
AECL	AECL	8346	8949	17295	9127	9725	18852	9350	7150	16500
CMHC	CMHC	938	947	1885	1025	1121	2146	1025	1129	2154
CIDA	CIDA	624	29175	29799	697	30471	31168	772	42820	43592
COMM	COMM-CC	7283	732	8015	5865	554	6419	5853	554	6407
CCA	CCA-COR	13770	.	13770	14097	.	14097	16618	.	16618
	TOTAL	13770	.	13770	14097	.	14097	16618	.	16618
EMR	EMR-ENER	2379	11788	14167	2773	20828	23501	2600	23165	25765
	EMR-MES	75751	15547	91298	78121	16142	94263	75361	17542	92903
	TOTAL	78130	27335	105465	80894	36970	117864	77960	40707	118667
ENV	ENV-ADM	32	119	151	35	20	55	34	.	34
	ENV-AES	202669	4589	207258	233315	4764	238079	233480	4938	238418
	ENV-C&P	55314	6947	62261	57805	7327	65132	61078	7687	68765
	ENV-PC	5993	307	6300	6245	319	6564	6461	331	6792
	TOTAL	264008	11962	275970	297400	12430	309830	301052	12956	314008
F&D	F&D-FM	94567	6415	100982	85552	6504	92056	80276	6107	86383
IAND	IAND-NA	308	968	1276	338	1315	1653	344	1039	1383
IDRC	IDRC	639	2695	3334	715	3011	3726	764	3215	3979
IJC	IJC	3232	98	3330	3530	127	3657	3766	120	3886
MRC	MRC	156	6022	6178	166	6646	6812	167	6747	6914
NCC	NCC	317	197	514	390	164	554	390	160	550
NDEF	NDEF-SER	1934	.	1934	2011	.	2011	2708	.	2708
NEB	NEB	367	.	367	397	.	397	407	.	407
NFB	NFB	473	.	473	290	.	290	290	.	290
NHW	NHW-HP	52637	1090	53727	56566	1048	57614	61818	1056	62874
	NHW-HSS	277	3986	4263	299	4681	4980	390	4680	5070
	NHW-MS	1926	.	1926	1987	.	1987	1971	.	1971
	TOTAL	54841	5076	59917	58852	5729	64581	64179	5736	69915
NMC	NMC	26218	5387	31605	28780	5617	34397	31676	6318	37994
NRC	NRC-SIR	18399	589	18988	55260	691	55951	54293	691	54984
	NRC-STI	26764	78	26842	.	.	.	.	.	.
	TOTAL	45163	667	45830	55260	691	55951	54293	691	54984

(CONTINUED)

TABLE 49

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES IN THE NATURAL SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE NATUR.
AND ACTIVITY: RSA

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NSERC	NSERC	1585	38006	39571	1885	41282	43171	1748	43072	44820
PW	PW-PTS	1736	384	2120	1948	1771	3719	1979	1760	3739
RIE	RIE	.	1427	1427	.	1520	1520	.	1580	1580
ST	ST	231	2124	2355	182	2194	2376	199	2959	3158
SECS	SECS-ES	.	1133	1133	.	575	575	.	.	.
	TOTAL	.	1133	1133	.	575	575	.	.	.
SS	SS-SUPP	43	3265	3308	25	1810	1835	28	1740	1768
TPT	TPT-ADM	1850	1551	3401	1346	1515	2861	1382	1275	2657
	TPT-AIR	2175	341	2516	1916	383	2299	1729	426	2155
	TPT-MAR	.	139	139	.	.	.	.	.	.
	TPT-SUR	235	102	337	247	107	354	276	118	394
	TOTAL	4261	2133	6394	3509	2005	5514	3387	1819	5206
TOTAL	TOTAL	641815	156980	798795	685422	174350	859772	692651	189754	882405

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES BY ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	225	5605	765	4617	1959	2855	140	16167
INTRAMURAL RSA	157	2130	676	2676	1567	518	.	7725
ADMIN. OF EXTRAMURAL PROGRAMS	36	309	332	38	313	10	10	1048
TOTAL	419	8044	1773	7331	3839	3383	150	24940

SCIENCE TYPE NATURAL
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	233	5636	784	4571	1971	2738	147	16080
INTRAMURAL RSA	151	2129	699	2689	1524	493	.	7686
ADMIN. OF EXTRAMURAL PROGRAMS	35	313	344	38	314	9	10	1064
TOTAL	420	8078	1827	7298	3810	3241	157	24830

SCIENCE TYPE NATURAL
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	234	5642	758	4604	1920	2566	144	15869
INTRAMURAL RSA	147	2129	715	2613	1442	451	.	7496
ADMIN. OF EXTRAMURAL PROGRAMS	33	308	344	40	321	9	10	1064
TOTAL	414	8079	1817	7257	3683	3026	154	24430

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES BY DEPARTMENT AND CATEGORY, 1985-86

SCIENCE TYPE NATURAL
AND YEAR 1985-86

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
DEPARTMENT	PROGRAM								
AGR	AGR-ADM	1	44	26	5	43	.	.	119
	AGR-FOR	30	326	59	362	123	74	.	973
	AGR-CGC	1	22	3	65	11	2	.	104
	AGR-DEV	52	901	109	893	342	1366	.	3662
	AGR-RI	1	97	2	126	25	39	.	290
	AGR-GO	.	.	.	.	1	.	.	1
	TOTAL	85	1389	199	1450	545	1481	.	5149
AECB	AECB	.	13	1	.	.	.	.	14
AECL	AECL	19	763	.	932	324	524	.	2562
CMHC	CMHC	1	15	.	1	10	.	.	25
CIDA	CIDA	.	.	9	.	7	.	.	16
COMM	COMM-CC	20	184	25	133	45	.	.	406
CCA	CCA-COR	7	121	17	1	112	.	.	258
	TOTAL	7	121	17	1	112	.	.	258
EMR	EMR-ENER	3	25	8	.	7	.	.	43
	EMR-MES	53	1057	159	809	345	152	.	2575
	TOTAL	56	1082	167	809	352	152	.	2618
ENV	ENV-ADM	.	2	6	.	0	.	.	8
	ENV-AES	68	657	234	1087	367	29	.	2442
	ENV-C&P	10	378	154	292	285	82	.	1201
	ENV-PC	.	23	.	.	.	3	.	27
	TOTAL	78	1060	394	1379	653	114	.	3678
F&O	F&O-FM	44	756	147	943	274	504	.	2568
IAND	IAND-NA	1	14	2	.	1	.	.	18
IDRC	IDRC	3	62	7	4	28	.	.	104
IJC	IJC	6	11	6	4	20	.	.	47
MRC	MRC	6	.	22	.	26	.	.	54
NCC	NCC	.	5	2	.	.	.	.	7
NDEF	NDEF-SER	21	568	117	453	265	239	150	1822
NEB	NEB	.	5	1	.	.	.	.	6
NFB	NFB	.	4	.	2	2	.	.	8
NHW	NHW-HP	28	581	35	251	245	54	.	1194
	NHW-HSS	1	1	7	.	4	.	.	13
	NHW-MS	.	13	.	14	13	.	.	40
	TOTAL	29	595	42	265	262	54	.	1248
NMC	NMC	15	37	85	91	66	60	.	354
NRC	NRC-SIR	8	1177	243	929	543	250	.	3150
	NRC-STI	.	79	41	1	125	4	.	250
	TOTAL	8	1256	284	930	668	254	.	3400

(CONTINUED)

TABLE 51

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES BY DEPARTMENT AND CATEGORY, 1985-86

SCIENCE TYPE NATURAL
AND YEAR 1985-86

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITARY	TOTAL
		PY S	PY S	PY S	PY S	PY S	PY S	PY S	PY S
DEPARTMENT	PROGRAM								
NSERC	NSERC	11	1	52	.	84	.	.	148
PW	PW-PTS	0	26	9	10	.	.	.	45
RIE	RIE	.	.	163	.	70	.	.	233
RCMP	RCMP	1	1	.	.	1	.	.	3
ST	ST	4	.	5	.	2	.	.	11
SECS	SECS-ES	.	.	.	.	0	.	.	0
	TOTAL	.	.	.	.	0	.	.	0
SS	SS-SUPP	0	.	2	.	2	.	.	5
TPT	TPT-ADM	1	38	10	6	18	.	.	73
	TPT-AIR	1	23	1	5	.	.	.	30
	TPT-MAR	.	16	5	3	3	.	.	27
	TPT-SUR	1	0	0	2	.	2	.	5
	TOTAL	3	77	16	16	21	2	.	135
TOTAL	TOTAL	419	8044	1773	7331	3839	3389	150	24940

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES BY DEPARTMENT AND CATEGORY, 1986-87

SCIENCE TYPE NATURAL
AND YEAR 1986-87

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITAR.	TOTAL
		PY S	PY S	PY S	PY S	PY S	PY S	PY S	PY S
DEPARTMENT	PROGRAM								
AGR	AGR-ADM	1	44	29	5	42	.	.	121
	AGR-FOR	27	327	57	352	110	71	.	945
	AGR-CGC	1	26	4	68	12	2	.	113
	AGR-DEV	61	941	108	878	336	1246	.	3570
	AGR-RI	1	95	3	118	25	37	.	279
	TOTAL	51	1433	201	1421	526	1355	.	5028
AECB	AECB	.	13	1	.	.	.	.	14
AECL	AECL	19	777	.	919	332	557	.	2603
CMHC	CMHC	1	15	.	1	11	.	.	27
CIDA	CIDA	.	.	9	.	7	.	.	16
COMM	COMM-CC	18	185	33	128	48	.	.	412
CCA	CCA-COR	7	121	17	1	114	.	.	260
	TOTAL	7	121	17	1	114	.	.	260
EMR	EMR-ENER	3	25	7	.	7	.	.	43
	EMR-MES	52	1053	154	807	329	148	.	2542
	TOTAL	55	1079	161	807	335	148	.	2585
ENV	ENV-ADM	.	2	6	.	0	.	.	8
	ENV-AES	88	854	251	108	350	22	.	2436
	ENV-C&P	10	385	156	295	288	84	.	1218
	ENV-PC	.	23	.	.	1	3	.	27
	TOTAL	78	1064	423	1376	639	109	.	3689
F&O	F&O-EN	42	706	136	871	274	477	.	2506
IAND	IAND-NA	1	15	2	.	1	.	.	19
IDRC	IDRC	3	70	7	4	34	.	.	117
IJC	IJC	6	10	5	4	20	.	.	45
MRC	MRC	5	.	19	.	29	.	.	53
NCC	NCC	.	6	3	.	.	.	.	9
NDEF	NDEF-SER	24	578	130	452	266	227	157	1833
NEB	NEB	.	5	1	.	.	.	.	6
NFB	NFB	.	4	.	2	2	.	.	8
NHW	NHW-HP	26	601	36	245	236	52	.	1196
	NHW-HSS	1	1	7	.	4	.	.	13
	NHW-MS	.	12	.	14	10	.	.	36
	TOTAL	27	614	43	259	250	52	.	1245
NMC	NMC	14	44	86	103	63	55	.	365
NRC	NRC-SIR	8	1241	286	929	677	259	.	3400
	TOTAL	8	1241	286	929	677	259	.	3400
NSERC	NSERC	11	1	52	.	79	.	.	143
PW	PW-PTS	0	22	9	11	.	.	.	42

(CONTINUED)

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES BY DEPARTMENT AND CATEGORY, 1986-87

SCIENCE TYPE NATURAL
AND YEAR 1986-87

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
DEPARTMENT	PROGRAM								
RIE	RIE	.	.	183	.	78	.	.	261
RCMP	RCMP	1	3	.	.	.	.	.	5
ST	ST	4	.	5	.	2	.	.	11
SS	SS-SUPP	0	.	2	.	2	.	.	5
TPT	TPT-ADM	1	35	10	3	18	.	.	67
	TPT-AIR	1	23	1	5	.	.	.	30
	TPT-MAR	.	13	3	3	1	.	.	20
	TPT-SUR	2	1	0	1	.	2	.	5
	TOTAL	4	72	14	12	19	2	.	122
TOTAL	TOTAL	420	8078	1827	7298	3810	3241	157	24830

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES BY DEPARTMENT AND CATEGORY, 1987-88

SCIENCE TYPE NATURAL
AND YEAR 1987-88

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
DEPARTMENT	PROGRAM								
AGR	AGR-ADM	*	41	29	5	41	.	.	117
	AGR-FOR	27	325	57	350	107	72	.	937
	AGR-CGC	*	26	4	68	12	2	.	113
	AGR-DEV	6*	938	113	925	352	1126	.	3516
	AGR-RI	1	98	3	118	25	37	.	282
	TOTAL	91	1428	206	1467	537	1237	.	4965
AECB	AECB	.	13	1	.	.	.	.	14
AECL	AECL	19	769	.	914	310	550	.	2562
CMHC	CMHC	1	15	.	1	10	.	.	26
CIDA	CIDA	.	.	9	.	7	.	.	16
COMM	COMM-CC	19	186	33	128	48	.	.	413
CCA	CCA-COR	8	121	17	1	115	.	.	262
	TOTAL	8	121	17	1	115	.	.	262
EMR	EMR-ENER	2	25	8	.	13	.	.	48
	EMR-MES	51	1030	156	794	322	144	.	2497
	TOTAL	53	1055	164	794	335	144	.	2545
ENV	ENV-ADM	0	3	6	.	0	.	.	10
	ENV-AES	65	666	282	1080	340	19	.	2452
	ENV-C&P	9	391	152	298	295	88	.	1243
	ENV-PC	.	23	.	.	1	3	.	27
	TOTAL	74	1083	450	1378	636	110	.	3732
F&O	F&O-FM	40	690	85	754	165	396	.	2130
IAND	IAND-NA	*	15	2	.	1	.	.	19
IDRC	IDRC	3	70	7	4	34	.	.	117
IJC	IJC	6	11	4	4	20	.	.	45
MRC	MRC	5	.	21	.	26	.	.	52
NCC	NCC	.	6	3	.	.	.	.	9
NDEF	NDEF-SER	24	592	130	453	266	229	154	1837
NEB	NEB	.	5	1	.	.	.	.	6
NFB	NFB	.	4	.	2	2	.	.	8
NHW	NHW-HP	27	613	36	247	229	51	.	1203
	NHW-HSS	*	1	7	.	4	.	.	13
	NHW-MS	.	12	.	14	10	.	.	36
	TOTAL	28	626	43	261	243	51	.	1252
NMC	NMC	15	56	94	105	65	52	.	387
NRC	NRC-SIR	9	1254	280	967	682	255	.	3447
	TOTAL	9	1254	280	967	682	255	.	3447
NSERC	NSERC	9	.	54	.	79	.	.	142
PW	PW-PTS	0	22	9	11	.	.	.	42

(CONTINUED)

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES BY DEPARTMENT AND CATEGORY, 1987-88

SCIENCE TYPE NATURAL
AND YEAR 1987-88

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITARY	TOTAL
		P. S	P. S	P. S	P. S	P. S	P. S	P. S	P. S
DEPARTMENT	PROGRAM								
RIE	RIE	.	.	182	.	78	.	.	260
RCMP	RCMP	1	4	.	.	1	.	.	6
ST	ST	4	.	5	.	2	.	.	11
SS	SS-SUPP	0	.	2	.	2	.	.	5
TPT	TPT-ADM	1	34	10	3	18	.	.	66
	TPT-AIR	1	23	3	7	.	.	.	34
	TPT-MAR	.	6	3	3	1	.	.	13
	TPT-SUR	2	1	0	1	.	2	.	6
	TOTAL	4	64	15	14	19	2	.	119
TOTAL	TOTAL	414	8079	1817	7257	3583	3026	154	24430

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
ANC ACTI.ITY TOTAL

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	527771	78	708893	79	650782	78
CANADIAN INDUSTRY	18696	2	16808	2	16248	2
CANADIAN UNIVERSITY	69771	9	77232	9	75634	9
CANADIAN N P INST	20755	3	23182	3	22958	3
PROV. & MUN. GOV T	15349	2	24490	3	25213	3
FOREIGN PERFORMERS	31859	4	35126	4	36149	4
OTHER PERFORMERS	10842	1	11364	1	12071	1
TOTAL	763037	100	897095	100	839056	100

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY ACTIVITY AND PERFORMER, 1985-86

SCIENCE TYPE HUMAN
AND YEAR 1985-86

	PERFORMER							TOTAL
	INTRAMURAL	CANADIAN INDUSTRY	CANADIAN UNIVERSITY	CANADIAN N P INST	PROV. & MUN. GOV T	FOREIGN PERFORMERS	OTHER PERFORMERS	
	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ACTIVITIES								
IN-HOUSE R&D	42705	.	.	.	.	.	.	42705
R&D CONTRACTS	35	3210	1158	904	375	35	3118	8839
SUPPORTING CONTRACTS	1659	.	.	.	.	.	.	1659
R&D GRANTS	.	251	38490	8421	796	18021	716	66695
RESEARCH FELLOWSHIPS	.	.	5884	.	.	4024	399	10307
ADMIN. EXTRAMURAL R&D	16667	.	.	.	.	.	.	16667
CAPITAL - R&D	412	.	.	.	.	.	.	412
SUB TOTAL R&D	61479	3461	45532	9325	1175	22080	4233	147285
DATA COLLECTION	233908	4955	2224	616	1748	29	1790	245270
INFORMATION SERVICES	119609	1451	3840	4265	112	3596	528	133401
ECONOMIC & FEAS. STUDIES	32468	1270	318	1500	39	1187	172	36954
OPERN'S & POLICY STUDIES	83596	4951	631	4225	7700	20	238	101361
EDUCATIONAL SUPPORT	860	234	16477	75	75	4947	166	22836
MUSEUM SERVICES	49176	374	749	749	4494	.	3713	53255
ADMIN. EXTRAMURAL RSA	12244	.	.	.	.	.	.	12244
CAPITAL - RSA	10431	.	.	.	.	.	.	10431
SUB TOTAL RSA	536292	13235	24239	11430	14168	9779	6609	615752
TOTAL	597771	16696	69771	20755	15343	31859	10842	763037

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY ACTIVITY AND PERFORMER, 1986-87

SCIENCE TYPE HUMAN
AND YEAR 1986-87

	PERFORMER							
	INTRAMURAL	CANADIAN INDUSTR.	CANADIAN UNIVERSITY	CANADIAN N P INST	PROV. & MUN. GOV'T	FOREIGN PERFORMERS	OTHER PERFORMERS	TOTAL
	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ACTIVITIES								
IN-HOUSE R&D	39653	.	.	.	.	.	.	39653
R&D CONTRACTS	58	3745	1109	594	470	43	2952	8971
SUPPORTING CONTRACTS	1039	.	.	.	.	.	.	1039
R&D GRANTS	.	856	40294	11360	145	19325	911	74807
RESEARCH FELLOWSHIPS	.	.	9814	.	.	4093	439	14346
ADMIN. EXTRAMURAL R&D	17830	.	.	.	.	.	.	17830
CAPITAL - R&D	296	.	.	.	.	.	.	296
SUB TOTAL R&D	58876	4611	51217	11954	1921	24061	4302	156942
DATA COLLECTION	335162	5857	2345	802	1839	.	2214	348219
INFORMATION SERVICES	120656	1171	4392	3577	128	4398	334	134656
ECONOMIC & FEAS. STUDIES	31656	911	261	1555	147	1326	293	36149
OPERN'S & POLICY STUDIES	89709	3823	591	4315	15141	.	310	113889
EDUCATIONAL SUPPORT	924	.	17557	110	100	5341	204	24236
MUSEUM SERVICES	50563	435	869	869	5214	.	3707	61657
ADMIN. EXTRAMURAL RSA	12539	.	.	.	.	.	.	12539
CAPITAL - RSA	8809	.	.	.	.	.	.	8809
SUB TOTAL RSA	650018	12197	26015	11228	22569	11065	7062	740154
TOTAL	708893	16808	77232	23182	24490	35126	11364	897095

TABLE 53

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY ACTIVITY AND PERFORMER, 1987-88

SCIENCE TYPE HUMAN
AND YEAR 1987-88

	PERFORMER							
	INTRAMURAL	CANADIAN INDUSTRY	CANADIAN UNIVERSITY	CANADIAN N P INST	PROV. & MUN. GOVT	FOREIGN PERFORMERS	OTHER PERFORMERS	TOTAL
	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ACTIVITIES								
IN-HOUSE R&D	43182	.	.	.	.	.	.	43182
R&D CONTRACTS	60	3435	1049	558	488	46	3115	8751
SUPPORTING CONTRACTS	988	.	.	.	.	.	.	988
R&D GRANTS	.	818	38952	10939	1451	21373	1061	74594
RESEARCH FELLOWSHIPS	.	.	10166	.	.	4353	410	14929
ADMIN. EXTRAMURAL R&D	19173	.	.	.	.	.	.	19173
CAPITAL - R&D	178	.	.	.	.	.	.	178
SUB TOTAL R&D	63581	4253	50167	11497	1939	25772	4586	161795
DATA COLLECTION	250442	5919	2396	782	1221	.	2365	263125
INFORMATION SERVICES	126966	1580	3713	3617	151	4011	346	140384
ECONOMIC & FEAS. STUDIES	34361	1282	198	1602	174	1416	240	39273
OPERN'S & POLICY STUDIES	93592	2677	567	4287	15188	.	264	116575
EDUCATIONAL SUPPORT	935	.	17520	100	100	4950	255	23860
MUSEUM SERVICES	56537	537	1073	1073	6440	.	4015	69675
ADMIN. EXTRAMURAL RSA	13294	.	.	.	.	.	.	13294
CAPITAL - RSA	11076	.	.	.	.	.	.	11076
SUB TOTAL RSA	587202	11995	25467	11461	23274	10377	7485	677261
TOTAL	650783	16248	75634	22958	25213	36149	12071	839056

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN AND ACTIVITY TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-DEV	3372	60	3432	2959	80	3039	3005	80	3085
	TOTAL	3372	60	3432	2959	80	3039	3005	80	3085
CC	CC	260	12	272	270	13	283	281	13	294
CMHC	CMHC	11107	4636	15743	11977	6265	18242	12045	6656	18701
CBC	CBC	2254	3111	5365	1675	3120	4795	1367	3428	4795
CHRC	CHRC	419	56	475	472	75	547	553	100	653
CIDA	CIDA	3404	3499	6903	3165	3568	6733	3486	4263	7749
CLFB	CLFB	132	45	177	127	20	147	136	20	156
CRTC	CRTC	.	11	11	.	10	10	.	.	.
CTC	CTC	3647	.	3647	3523	.	3523	3528	.	3528
COL	COL	3215	.	3215	3296	.	3296	3332	.	3332
COMM	COMM-CC	192	1363	1555	256	970	1226	264	1027	1291
CCA	CCA-ADM	2481	797	3278	2553	927	3480	2487	920	3407
	CCA-CON	3347	.	3347	3532	.	3532	4128	.	4128
	TOTAL	5829	797	6626	6085	927	7012	6615	920	7535
ECC	ECC	9086	309	9395	9265	340	9605	9708	340	10048
E&I	E&I-ADM	18691	1275	19966	16483	257	16740	17050	265	17315
	E&I-CEIC	6435	439	6875	7319	655	7974	7312	451	7763
	TOTAL	25126	1714	26840	23802	912	24714	24362	716	25078
EMR	EMR-MES	11964	8767	20731	13621	18230	31851	16662	18179	34841
	TOTAL	11964	8767	20731	13621	18230	31851	16662	18179	34841
ENV	ENV-ADM	.	123	123	.	120	120	40	170	210
	ENV-C&P	5927	644	6571	6229	644	6873	6520	644	7164
	ENV-PC	7130	674	7804	7433	701	8134	7589	730	8319
	TOTAL	13057	1441	14498	13662	1465	15127	14149	1544	15693
EA	EA-CIA	8387	3451	11838	8943	3929	12872	9257	4250	13507
FIN	FIN-FEP	16590	.	16590	18745	.	18745	20711	.	20711
F&O	F&O-FM	5687	2461	8148	5349	2041	7390	5617	2005	7622
IAND	IAND-NA	279	526	805	314	492	806	310	428	738
IDRC	IDRC	18792	23007	41799	20998	25707	46705	22423	27451	49874
JUST	JUST-ADM	2033	2334	4367	1845	4054	5899	1831	2619	4450
	JUST-LRC	1077	1918	2995	1177	1878	3055	1190	1919	3109
	TOTAL	3109	4252	7361	3022	5932	8954	3021	4538	7559
LAB	LAB	5644	1207	6851	4119	285	4404	4350	222	4572
NCC	NCC	369	112	481	448	50	498	469	60	529
NDEF	NDEF-SER	3331	107	3438	3389	81	3470	3462	120	3582
NEB	NEB	1902	.	1902	2073	.	2073	2366	.	2366
NHW	NHW-ADM	9032	2024	11056	10983	2104	13087	10861	1554	12415

(CONTINUED)

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
ANE ACTIVITY TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NHW	NHW-HSS	835	8701	9536	893	9700	10593	1089	9739	10828
	NHW-IS	1200	47	1247	1455	275	1730	1536	.	1536
	NHW-MS	.	1418	1418	.	1500	1500	.	1500	1500
	NHW-SS	789	6389	7175	766	6366	7132	824	6486	7310
	TOTAL	11855	18578	30433	14097	19945	34042	14310	19279	33589
NLC	NLC	42012	38	42050	44472	61	44533	44749	65	44814
NMC	NMC	51039	10262	61301	60788	11313	72101	72263	13418	85701
NREV	NREV-TAX	2959	.	2959	2815	.	2815	3084	.	3084
PCO	PCO	.	70	70	.	90	90	.	90	90
PA	PA	20594	.	20594	23498	.	23498	19200	.	19200
RIE	RIE	506	3087	3593	574	3418	3992	596	3550	4146
ST	ST	8384	.	8384	12787	.	12787	12408	.	12408
SC	SC	4308	329	4637	2730	327	3057	2679	335	3014
SECS	SECS-ADM	456	94	550	774	178	952	763	178	941
	SECS-CIT	630	2371	3001	491	2489	2980	515	2342	2857
	SECS-ES	241	1841	2082	276	1032	1308	324	.	324
	SECS-OL	2030	370	2400	2046	387	2433	2182	412	2594
	TOTAL	3356	4676	8032	3587	4086	7673	3784	2932	6716
SSHRC	SSHRC	6429	57234	63663	6214	64424	70638	6459	62279	68738
SGEN	SGEN-ADM	5013	8902	13915	4969	8795	13764	5288	8795	14083
STCAN	STCAN	262572	94	262666	349747	98	349845	272285	48	272333
SS	SS-SUPP	2	202	204	4	320	324	6	300	306
TPT	TPT-ADM	41	111	152	42	120	162	40	125	165
	TPT-SUR	207	586	793	210	535	745	212	544	756
	TOTAL	248	697	945	252	655	907	252	669	921
TB	TB-ADM	21340	153	21493	20805	158	20963	21922	153	22075
TOTAL	TOTAL	597771	165266	763037	708893	188202	897095	650783	188273	839056

FEDERAL INTRAMURAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-DEV	.	3372	3372	.	2959	2959	.	3005	3005
	TOTAL	.	3372	3372	.	2959	2959	.	3005	3005
CC	CC	133	127	260	128	142	270	133	148	281
CMHC	CMHC	3958	7149	11107	4193	7784	11977	4223	7822	12045
CBC	CBC		2254	2254	.	1675	1675	.	1367	1367
CHRC	CHRC	.	419	419	.	472	472	.	553	553
CIDA	CIDA	394	3010	3404	438	2727	3165	483	3003	3486
CLFB	CLFB	103	29	132	98	29	127	109	27	136
CTC	CTC	1926	1721	3647	1817	1706	3523	1820	1708	3528
COL	COL	.	3215	3215	.	3296	3296	.	3332	3332
COMM	COMM-CC	78	114	192	73	183	256	75	189	264
CCA	CCA-ADM	1925	556	2481	2050	504	2553	1963	524	2487
	CCA-CON	.	3347	3347	.	3532	3532	.	4128	4128
	TOTAL	1925	3904	5829	2050	4035	6085	1963	4652	6615
ECC	ECC	7709	1377	9086	7776	1489	9265	8205	1503	9708
E&I	E&I-ADM	1424	17267	18691	.	16483	16483	.	17050	17050
	E&I-CEIC	670	5766	6436	.	7319	7319	.	7312	7312
	TOTAL	2093	23033	25126	.	23802	23802	.	24362	24362
EMR	EMR-MES	35	11929	11964	.	13621	13621	.	16662	16662
	TOTAL	35	11929	11964	.	13621	13621	.	16662	16662
ENV	ENV-ADM	.	.	.	.	.	.	40	.	40
	ENV-C&P	1024	4903	5927	1079	5150	6229	1131	5389	6520
	ENV-PC	.	7130	7130	.	7433	7433	.	7589	7589
	TOTAL	1024	12033	13057	1079	12583	13662	1171	12978	14149
EA	EA-CIA	.	8387	8387	.	8943	8943	.	9257	9257
FIN	FIN-FEP	.	16590	16590	.	18745	18745	.	20711	20711
F&O	F&O-FM	22	5665	5687	31	5317	5349	88	5530	5617
IAND	IAND-NA	88	192	279	99	215	314	103	207	310
IDRC	IDRC	8996	9794	18792	10055	10943	20998	10737	11686	22423
JUST	JUST-ADM	825	1208	2033	864	981	1845	862	969	1831
	JUST-LRC	606	470	1077	655	522	1177	658	532	1190
	TOTAL	1431	1678	3109	1519	1503	3022	1520	1501	3021
LAB	LAB	124	5519	5644	.	4119	4119	.	4350	4350
NCC	NCC	.	369	369	.	448	448	.	469	469
NDEF	NDEF-SER	1603	1728	3331	1547	1842	3389	1588	1874	3462
NEB	NEB	.	1902	1902	.	2073	2073	.	2366	2366
NHW	NHW-ADM	.	9032	9032	.	10983	10983	.	10861	10861
	NHW-HSS	475	360	835	500	393	893	635	454	1089

(CONTINUED)

FEDERAL INTRAMURAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NHW	NHW-IS	.	1200	1200	.	1455	1455	.	1536	1536
	NHW-SS	252	536	788	245	520	766	264	560	824
	TOTAL	727	11128	11855	745	13351	14097	899	13411	14310
NLC	NLC	.	42012	42012	.	44472	44472	.	44749	44749
NMC	NMC	6049	44990	51039	7473	53315	60788	9249	63034	72283
NREV	NREV-TAP	175	2784	2959	188	2627	2815	207	2877	3084
PA	PA	.	20594	20594	.	23498	23498	.	19200	19200
RIE	RIE	.	506	506	.	574	574	.	596	596
ST	ST	.	8384	8384	.	12787	12787	.	12408	12408
SC	SC	1983	2325	4308	1277	1453	2730	1293	1386	2679
SECS	SECS-ADM	.	456	456	.	774	774	.	763	763
	SECS-CIT	630	.	630	491	.	491	515	.	515
	SECS-ES	241	.	241	276	.	276	324	.	324
	SECS-OL	1781	249	2030	1795	251	2046	1915	267	2182
	TOTAL	2652	705	3356	2562	1025	3587	2755	1030	3784
SSHRC	SSHRC	3424	3005	6429	3230	2984	5214	3359	3100	6459
SGEN	SGEN-ADM	3830	1182	5013	3652	1317	4969	3891	1397	5286
STCAN	STCAN	10903	251669	262572	8746	341001	349747	9611	262673	272285
SS	SS-SUPP	.	2	2	.	4	4	2	4	6
TPT	TPT-ADM	.	41	41	.	42	42	.	40	40
	TPT-SUP	101	106	207	99	111	210	98	114	212
	TOTAL	101	147	248	99	153	252	98	154	252
TB	TB-ADM	.	21340	21340	.	20805	20805	.	21922	21922
TOTAL	TOTAL	61479	536292	597771	58876	650018	708893	63581	587202	650783

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, IN THE INDUSTRY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER CANADIAN INDUSTR

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-DE.	.	50	50	.	50	50	.	50	50
	TOTAL	.	50	50	.	50	50	.	50	50
CC	CC	.	3	3	.	3	3	.	3	3
CMHC	CMHC	39	1018	1057	123	991	1114	123	1033	1156
CBC	CBC	.	3093	3093	.	3120	3120	.	3429	3429
CLFB	CLFB	25	.	25	.	.	.	.	.	.
CRTC	CRTC	11	.	11	10	.	10	.	.	.
COMM	COMM-CC	.	1199	1199	55	765	820	55	926	981
CCA	CCA-ADM	281	415	696	470	300	770	470	300	770
	TOTAL	281	415	696	470	300	770	470	300	770
ECC	ECC	77	.	77	80	.	80	80	.	80
E&I	E&I-ADM	.	1207	1207	.	257	257	.	265	265
	E&I-CEIC	111	.	111	.	581	581	.	397	397
	TOTAL	111	1207	1318	.	838	838	.	662	662
EMR	EMR-MES	.	.	.	600	.	600	545	.	545
	TOTAL	.	.	.	600	.	600	545	.	545
ENV	ENV-ADM	107	.	107	20	.	20	70	.	70
	ENV-C&P	205	235	440	205	235	440	205	235	440
	ENV-PC	73	.	73	76	.	76	79	.	79
	TOTAL	385	235	620	301	235	536	354	235	589
EA	EA-CIA	.	.	.	.	460	460	.	490	490
F&O	F&O-FM	.	2221	2221	.	1835	1835	.	1849	1849
IAND	IAND-NA	90	72	162	143	4	147	150	.	150
JUST	JUST-ADM	327	465	792	974	571	1545	618	482	1100
	JUST-LRC	.	380	380	.	370	370	.	350	350
	TOTAL	327	845	1172	974	1041	2015	618	832	1450
LAB	LAB	.	847	847	.	160	160	.	160	160
NCC	NCC	.	102	102	.	40	40	.	50	50
NDEF	NDEF-SEF	.	63	63	.	40	40	.	55	55
NHW	NHW-ADM	.	272	272	.	294	294	.	344	344
	NHW-HSS	235	95	330	.	.	.	.	.	.
	NHW-IS	.	47	47	.	275	275	.	.	.
	NHW-MS	.	93	93	.	98	98	.	98	98
	TOTAL	235	507	742	.	667	667	.	442	442
NMC	NMC	.	374	374	.	435	435	.	537	537
RIE	RIE	.	7	7	.	.	.	.	.	.
SC	SC	103	.	103	200	.	200	156	.	156
SECS	SECS-ADM	.	78	78	.	148	148	.	148	148

(CONTINUED)

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, IN THE INDUSTRY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
ANT PERFORMER CANADIAN INDUSTR

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SECS	SECS-DIT	228	.	228	213	.	213	174	.	174
	SECS-OL	.	25	25	.	.	.	.	.	.
	TOTAL	228	103	331	213	148	361	174	148	322
SGEN	SGEN-ADM	1000	700	1700	1000	700	1700	1000	700	1700
SS	SS-SUPP	70	93	163	45	275	320	100	.	100
TPT	TPT-ADM	.	81	81	.	90	90	.	95	95
	TPT-SUR	479	.	479	397	.	397	428	.	428
	TOTAL	479	81	550	397	90	487	428	95	523
TOTAL	TOTAL	3461	13235	16696	4511	12197	16908	4253	11995	16248

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, IN THE UNIVERSITY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-DEV	.	10	10	.	30	30	.	30	30
	TOTAL	.	10	10	.	30	30	.	30	30
CC	CC	1	.	1	2	.	2	.	.	.
CMHC	CMHC	424	1414	1838	763	1350	2113	783	1403	2186
CBC	CBC	.	18	18	.	.	.	.	.	.
CIDA	CIDA	500	1099	1599	500	1148	1648	500	1613	2113
COMM	COMM-CC	.	144	144	.	130	130	.	25	25
CCA	CCA-ADM	19	.	19	71	.	71	70	.	70
	TOTAL	19	.	19	71	.	71	70	.	70
ECC	ECC	5	.	5	10	.	10	10	.	10
E&I	E&I-ADM	56	12	68	.	.	.	.	.	.
	E&I-CEIC	89	.	89	.	34	34	.	34	34
	TOTAL	145	12	157	.	34	34	.	34	34
EMR	EMR-MES	196	.	196	195	.	195	182	.	182
	TOTAL	196	.	196	195	.	195	182	.	182
ENV	ENV-ADM	10	.	10	95	.	95	90	.	90
	ENV-C&P	48	1	49	48	1	49	48	1	49
	ENV-PC	40	28	68	42	29	71	44	30	74
	TOTAL	98	29	127	185	30	215	182	31	213
EA	EA-CIA	.	269	269	.	2698	2698	.	2303	2303
F&C	F&C-FN	.	193	193	.	185	185	.	135	135
IAND	IAND-NA	248	6	254	248	13	261	248	.	248
IDRC	IDRC	1053	.	1053	1177	.	1177	1257	.	1257
JUST	JUST-ADM	95	279	374	96	289	385	91	251	342
	TOTAL	95	279	374	96	289	385	91	251	342
LAB	LAB	40	187	227	40	.	40	.	.	.
NDEF	NDEF-SER	.	44	44	.	41	41	.	65	65
NHW	NHW-HSS	4217	2073	6290	4730	2337	7067	4745	2344	7089
	NHW-SS	1017	154	1171	717	153	870	459	151	610
	TOTAL	5234	2227	7461	5447	2490	7937	5204	2495	7699
NMC	NMC	.	749	749	.	869	869	.	1073	1073
PCC	PCC	65	.	65	65	.	65	65	.	65
RIE	RIE	.	1699	1699	.	2010	2010	.	2187	2187
SC	SC	32	.	32	15	.	15	16	.	16
SECS	SECS-CIT	953	75	1028	950	56	1006	947	.	947
	SECS-ES	1841	.	1841	1030	.	1030	.	.	.
	SECS-OL	.	89	89	.	50	50	.	55	55
	TOTAL	2794	164	2958	1984	106	2090	947	55	1002

(CONTINUED)

TABLE 57

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, IN THE UNIVERSITY SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
ANY PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SSHRC	SSHRC	39124	12994	46112	38972	14320	53292	39184	12673	51857
SGEN	SGEN-ADM	1395	200	1595	1395	200	1595	1395	300	1695
SS	SS-SUPP	.	13	13	.	.	.	.	150	150
TPT	TPT-ADM	.	30	30	.	30	30	.	30	30
	TPT-SUR	67	40	107	52	42	94	52	44	96
	TOTAL	67	70	137	52	72	124	52	74	126
TOTAL	TOTAL	45532	24239	69771	51217	26015	77232	50167	25467	75634

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, IN THE NON-PROFIT INSTITUTE SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER CANADIAN N P INST

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CC	CC	2	.	2	2	.	2	2	.	2
CMHC	CMHC	1141	145	1286	1736	157	1893	1736	157	1893
E&I	E&I-CEIC	.	99	99	.	40	40	.	20	20
	TOTAL	.	99	99	.	40	40	.	20	20
EMR	EMR-MES	1250	.	1250	2750	.	2750	2727	.	2727
	TOTAL	1250	.	1250	2750	.	2750	2727	.	2727
ENV	ENV-ADM	6	.	6	5	.	5	10	.	10
	ENV-PC	11	.	11	11	.	11	12	.	12
	TOTAL	17	.	17	16	.	16	22	.	22
IAND	IAND-NA	.	64	64	.	69	69	.	30	30
IDRC	IDRC	578	.	578	646	.	646	690	.	690
JUST	JUST-ADM	72	740	812	81	1110	1191	64	379	443
	JUST-LRC	8	.	8	12	.	12	10	.	10
	TOTAL	80	740	820	93	1110	1203	74	379	453
LAB	LAB	.	71	71	.	.	.	.	.	.
NHW	NHW-ADM	.	40	40	.	40	40	.	40	40
	NHW-HSS	967	501	1368	1050	593	1643	1052	593	1645
	NHW-MS	.	88	88	.	97	97	.	97	97
	NHW-SS	1040	3938	4878	1289	3808	5097	851	4516	5367
	TOTAL	1907	4467	6374	2339	4538	6877	1903	5246	7149
NMC	NMC		749	749	.	869	869	.	1079	1079
RIE	RIE	.	1014	1014	.	1000	1000	.	1000	1000
SC	SC	10	.	10	25	.	25	20	.	20
SECS	SECS-CIT	405	8	413	445	.	445	450	.	450
	SECS-OL	.	176	176	.	255	255	.	275	275
	TOTAL	405	184	589	445	255	700	450	275	725
SSHRC	SSHRC	.	3696	3696	.	2990	2990	.	3041	3041
SGEN	SGEN-ADM	3782	175	3957	3700	200	3900	3700	200	3900
SS	SS-SUPP	.	26	26	.	.	.	.	40	40
TPT	TPT-SUR	.	.	.	44	.	44	20	.	20
	TOTAL	.	.	.	44	.	44	20	.	20
TB	TB-ADM	153	.	153	158	.	158	153	.	153
TOTAL	TOTAL	9325	11430	20755	11954	11228	23182	11497	11461	22958

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, IN THE PROVINCIAL AND MUNICIPAL GOVERNMENT SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER PROV. & MUN. SECT.

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CMHC	CMHC	25	.	25	651	8	659	551	8	559
E&I	E&I-CEIC	62	.	62	.	.	.	.	.	.
	TOTAL	62	.	62	.	.	.	.	.	.
EMR	EMR-MES	.	7286	7286	.	14685	14685	.	14725	14725
	TOTAL	.	7286	7286	.	14685	14685	.	14725	14725
F&O	F&O-FM	.	23	23	.	16	16	.	16	16
IAND	IAND-NA	20	.	20	.	.	.	.	.	.
JUST	JUST-ADM	7	54	61	60	66	126	78	81	159
	TOTAL	7	54	61	60	66	126	78	81	159
LAB	LAB	.	.	.	.	23	23	.	.	.
NCC	NCC	10	.	10	10	.	10	10	.	10
NHW	NHW-ADM	.	1712	1712	.	1770	1770	.	1170	1170
	NHW-HSS	.	34	34	.	60	60	.	65	65
	NHW-SS	.	23	23	.	119	119	.	146	146
	TOTAL	.	1769	1769	.	1949	1949	.	1381	1381
NMC	NMC	.	4494	4494	.	5214	5214	.	6440	6440
RIE	RIE	.	367	367	.	408	408	.	423	423
SGEN	SGEN-ADM	1050	175	1225	1200	200	1400	1200	200	1400
TOTAL	TOTAL	1175	14168	15343	1921	22569	24490	1939	23274	25213

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, IN THE FOREIGN SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER FOREIGN PERFORMER

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CC	CC	6	.	6	6	.	6	7	.	7
CIDA	CIDA	1900	.	1900	1920	.	1920	2150	.	2150
COMM	COMM-CC	.	.	.	.	10	10	.	10	10
CCA	CCA-ADM	.	17	17	15	.	15	15	.	15
	TOTAL	.	17	17	15	.	15	15	.	15
E&I	E&I-CEIC	.	20	20	.	.	.	.	.	.
	TOTAL	.	20	20	.	.	.	.	.	.
EMR	EMR-MES	35	.	35	.	.	.	.	.	.
	TOTAL	35	.	35	.	.	.	.	.	.
ENV	ENV-C&P	10	.	10	10	.	10	10	.	10
	ENV-PC	2	.	2	2	.	2	2	.	2
	TOTAL	12	.	12	12	.	12	12	.	12
EA	EA-CIA	.	760	760	.	771	771	.	857	857
F&O	FSO-FM	.	12	12	.	.	.	.	.	.
IAND	IAND-NA	.	.	.	.	15	15	.	.	.
IDRC	IDRC	17218	3731	20949	19240	4168	23408	20546	4450	24996
NHA	NHA-HSS	342	.	342	390	.	390	390	.	390
	NHW-SS	.	231	231	.	168	168	.	206	206
	TOTAL	342	231	573	390	168	558	390	206	596
NLC	NLC	.	38	38	.	61	61	.	65	65
SC	SC	12	.	12	12	.	12	12	.	12
SSHRC	SSHRC	2550	4876	7426	2468	5674	8142	2540	4861	7381
SGEN	SGEN-ADM	.	.	.	.	100	100	.	.	.
STCAN	STCAN	.	94	94	.	98	98	.	48	48
TOTAL	TOTAL	22080	9779	31859	24061	11065	35126	25772	10377	36149

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, IN THE OTHER SECTOR BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
ANL PERFORMER OTHER PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CMHC	CMHC	294	135	429	286	200	486	438	325	762
CHRC	CHRC	.	56	56	.	75	75	.	100	100
CLFB	CLFB	20	.	20	20	.	20	20	.	20
COMM	COMM-CC	.	20	20	.	10	10	.	11	11
CCA	CCA-ADM	.	65	65	15	56	71	15	50	65
	TOTAL	.	65	65	15	56	71	15	50	65
ECC	ECC	227	.	227	250	.	250	250	.	250
E&I	E&I-CEIC	.	58	58	.	.	.	.	.	.
	TOTAL	.	58	58	.	.	.	.	.	.
ENV	ENV-C&P	78	67	145	78	67	145	78	67	145
	ENV-PC	192	328	520	200	341	541	208	355	563
	TOTAL	270	395	665	278	408	686	286	422	708
F&D	F&D-FM	.	12	12	.	5	5	.	5	5
IAND	IAND-NA	.	25	25	.	.	.	.	.	.
IDRC	IDRC	344	83	427	384	92	476	410	98	508
JUST	JUST-ADM	95	200	295	214	493	707	186	389	575
	JUST-LRC	1530	.	1530	1496	.	1496	1559	.	1559
	TOTAL	1625	200	1825	1710	493	2203	1745	389	2134
LAB	LAB	62	.	62	62	.	62	62	.	62
NHW	NHW-HSS	83	254	337	.	540	540	.	550	550
	NHW-MS	.	1237	1237	.	1305	1305	.	1305	1305
	NHW-SS	.	85	85	.	112	112	.	157	157
	TOTAL	83	1576	1659	.	1957	1957	.	2012	2012
NMC	NMC	234	3662	3896	272	3654	3926	335	3560	4295
PCO	PCO	5	.	5	25	.	25	25	.	25
SC	SC	167	.	167	77	.	77	131	.	131
SECS	SECS-ADM	.	16	16	.	30	30	.	30	30
	SECS-CIT	702	.	702	823	.	823	771	.	771
	SECS-OL	.	80	80	.	82	82	.	82	82
	TOTAL	702	96	798	823	112	935	771	112	883
SGEN	SGEN-ADM	200	225	425	100	.	100	100	.	100
TOTAL	TOTAL	4233	6609	10842	4302	7062	11364	4586	7485	12071

TABLE 62

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-DEV	.	3430	3430	.	3039	3039	.	3085	3085
	TOTAL	.	3430	3430	.	3039	3039	.	3085	3085
CC	CC	132	140	272	138	145	283	143	151	294
CMHC	CMHC	5882	9861	15743	7752	10490	18242	7932	10769	18701
CBC	CBC	.	5365	5365	.	4795	4795	.	4795	4795
CHRC	CHRC	.	475	475	.	547	547	.	653	653
CIDA	CIDA	2794	4109	6903	2858	3875	6733	3133	4616	7749
CLFB	CLFB	148	29	177	118	29	147	129	27	156
CRTC	CRTC	11	.	11	10	.	10	.	.	.
CTC	CTC	1926	1721	3647	1817	1706	3523	1820	1708	3528
COL	COL	.	3215	3215	.	3296	3296	.	3332	3332
COMM	COMM-CC	78	1477	1555	128	1098	1226	130	1161	1291
CCA	CCA-ADM	2225	1053	3278	2521	860	3380	2533	874	3407
	CCA-CON	.	3347	3347	.	3532	3532	.	4128	4128
	TOTAL	2225	4401	6626	2521	4391	7012	2533	5002	7535
ECC	ECC	8018	1377	9395	8116	1489	9605	8545	1503	10049
E&I	E&I-ADM	1480	18486	19966	.	16740	16740	.	17315	17315
	E&I-CEIC	932	5943	6875	.	7974	7974	.	7763	7763
	TOTAL	2411	24429	26840	.	24714	24714	.	25078	25078
EMR	EMR-MES	1516	19215	20731	3545	28306	31851	3454	31387	34841
	TOTAL	1516	19215	20731	3545	28306	31851	3454	31387	34841
ENV	ENV-ADM	123	.	123	120	.	120	210	.	210
	ENV-C&P	1365	5205	6571	1420	5453	6873	1472	5692	7164
	ENV-PC	318	7486	7804	331	7803	8134	345	7974	8319
	TOTAL	1806	12692	14498	1871	13256	15127	2027	13666	15693
EA	EA-CIA	.	11838	11838	.	12872	12872	.	13507	13507
FIN	FIN-FEP	.	16590	16590	.	18745	18745	.	20711	20711
F&O	F&O-FM	22	8126	8148	31	7358	7390	88	7535	7622
IAND	IAND-NA	445	360	805	490	316	806	501	237	738
IDRC	IDRC	28191	13608	41799	31502	15203	46705	33640	16234	49874
JUST	JUST-ADM	1421	2946	4367	2289	3610	5899	1899	2551	4450
	JUST-LRC	2144	850	2995	2163	892	3055	2227	882	3109
	TOTAL	3565	3796	7361	4452	4502	8954	4126	3433	7559
LAB	LAB	226	6624	6851	102	4302	4404	62	4510	4572
NCC	NCC	10	471	481	10	488	498	10	519	529
NDEF	NDEF-SER	1803	1635	3438	1547	1923	3470	1588	1994	3582
NEB	NEB	.	1902	1902	.	2073	2073	.	2366	2366
NHW	NHW-ADM	.	11056	11056	.	13087	13087	.	12415	12415

(CONTINUED)

TABLE 62

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES BY DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NHW	NHW-HSS	6219	3317	9536	6670	3923	10593	6822	4006	10828
	NHW-IS	.	1247	1247	.	1730	1730	.	1536	1536
	NHW-MS	.	1418	1418	.	1500	1500	.	1500	1500
	NHW-SS	2309	4867	7176	2251	4880	7132	1574	5736	7310
	TOTAL	8528	21905	30433	8921	25120	34042	8396	25193	33589
NLC	NLC	.	42050	42050	.	44533	44533	.	44814	44814
NMC	NMC	6283	55018	61301	7745	64356	72101	9584	76117	85701
NREV	NREV-TAX	175	2784	2959	188	2627	2815	207	2877	3084
PCO	PCO	70	.	70	90	.	90	90	.	90
PA	PA	.	20594	20594	.	23498	23498	.	19200	19200
RIE	RIE	.	3593	3593	.	3992	3992	.	4146	4146
ST	ST	.	8384	8384	.	12787	12787	.	12408	12408
SC	SC	2312	2325	4637	1604	1453	3057	1628	1386	3014
SECS	SECS-ADM	.	550	550	.	952	952	.	941	941
	SECS-CIT	2918	83	3001	2924	56	2980	2857	.	2857
	SECS-ES	2082	.	2082	1308	.	1308	324	.	324
	SECS-OL	1781	619	2400	1795	638	2433	1515	679	2594
	TOTAL	6781	1252	8032	6027	1646	7673	5097	1620	6716
SSHRC	SSHRC	39095	24568	63663	44670	25968	70638	45183	23555	68738
SGEN	SGEN-ADM	11257	2657	13915	11047	2717	13764	11286	2797	14083
STCAN	STCAN	10903	251763	262666	8746	341095	349845	9611	262721	272333
SS	SS-SUPP	70	134	204	45	279	324	102	204	306
TPT	TPT-ADM	.	152	152	.	162	162	.	165	165
	TPT-SUR	647	146	793	592	153	745	598	158	756
	TOTAL	647	298	945	592	315	907	598	323	921
TB	TB-ADM	153	21340	21493	158	20805	20963	153	21922	22075
TOTAL	TOTAL	147285	615752	763037	156942	740154	897095	161795	677261	839056

TABLE 63

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES BY PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND ACTIVITY R&D

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	61479	42	58676	38	63581	39
CANADIAN INDUSTRY	3461	2	4611	3	4253	3
CANADIAN UNIVERSITY	45532	31	51017	33	50167	31
CANADIAN N P INST	9325	6	11954	8	11497	7
PROV. & MUN. GOV'T	1175	1	1921	1	1939	1
FOREIGN PERFORMERS	22080	15	24061	15	25772	16
OTHER PERFORMERS	4233	3	4302	3	4586	3
TOTAL	147285	100	156942	100	161795	100

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND ACTIVITY R&D

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CC	CC	123	9	132	128	10	138	133	10	143
CMHC	CMHC	3956	1924	5882	4193	3559	7752	4223	3709	7932
CIDA	CIDA	394	2400	2794	438	2420	2858	483	2650	3133
CLFB	CLFB	103	45	148	98	20	118	109	20	129
CRTC	CRTC	.	11	11	.	10	10	.	.	.
CTC	CTC	1926	.	1926	1817	.	1817	1820	.	1820
COMM	COMM-CC	78	.	78	73	55	128	75	55	130
CCA	CCA-ADM	1925	300	2225	2050	571	2621	1963	570	2533
	TOTAL	1925	300	2225	2050	571	2621	1963	570	2533
ECC	ECC	7709	309	8018	7776	340	8116	8205	340	8545
E&I	E&I-ADM	1424	56	1480	.	.	.	.	.	.
	E&I-CEIC	670	262	932	.	.	.	.	.	.
	TOTAL	2093	318	2411	.	.	.	.	.	.
EMR	EMR-MES	35	1481	1516	.	3545	3545	.	3454	3454
	TOTAL	35	1481	1516	.	3545	3545	.	3454	3454
ENV	ENV-ADM	.	123	123	.	120	120	40	170	210
	ENV-C&P	1024	341	1365	1079	341	1420	1131	341	1472
	ENV-PC	.	318	318	.	331	331	.	345	345
	TOTAL	1024	782	1806	1079	792	1871	1171	856	2027
F&D	F&D-FM	22	.	22	31	.	31	88	.	88
IAND	IAND-NA	88	358	446	99	391	490	103	398	501
IDRC	IDRC	8998	19193	28191	10055	21447	31502	10737	22903	33640
JUST	JUST-ADM	825	596	1421	864	1425	2289	862	1037	1899
	JUST-LRC	606	1538	2144	655	1508	2163	658	1569	2227
	TOTAL	1431	2134	3565	1519	2933	4452	1520	2606	4126
LAB	LAB	124	102	226	.	102	102	.	62	62
NCC	NCC	.	10	10	.	10	10	.	10	10
NDEF	NDEF-SER	1603	.	1603	1547	.	1547	1588	.	1588
NHW	NHW-HSS	475	5744	6219	500	6170	6670	635	6187	6822
	NHW-SS	252	2057	2309	245	2006	2251	264	1310	1574
	TOTAL	727	7801	8528	745	8176	8921	899	7497	8396
NMC	NMC	6049	234	6283	7473	272	7745	9249	335	9584
NREV	NREV-TAX	175	.	175	188	.	188	207	.	207
PCO	PCO	.	70	70	.	90	90	.	90	90
SC	SC	1983	329	2312	1277	327	1604	1293	335	1628
SECS	SECS-CIT	630	2288	2918	491	2433	2924	515	2342	2857
	SECS-ES	241	1841	2082	276	1032	1308	324	.	324
	SECS-OL	1781	.	1781	1795	.	1795	1915	.	1915

(CONTINUED)

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
ANE ACTIVITY R&E

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SECS	TOTAL	2652	4129	6781	2562	3465	6027	2755	2342	5097
SSHRC	SSHRC	3424	35671	39095	3230	41440	44670	3359	41824	45183
SGEN	SGEN-ADM	3830	7427	11257	3652	7395	11047	3891	7395	11286
STCAN	STCAN	10903	.	10903	8746	.	8746	9611	.	9611
SS	SS-SUPP	.	70	70	.	45	45	2	100	102
TPT	TPT-SUR	101	546	647	99	493	592	98	500	598
	TOTAL	101	546	647	99	493	592	98	500	598
TB	TB-ADM	.	153	153	.	158	158	.	153	153
TOTAL	TOTAL	51479	85806	147285	58876	98066	156942	63581	98214	161795

FEDERAL INTRAMURAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CC	CC	.	.	123	.	.	128	.	.	133
CMHC	CMHC	.	.	3958	.	.	4193	.	.	4223
CIDA	CIDA	.	.	394	.	.	438	.	.	483
CLFB	CLFB	.	.	103	.	.	98	.	.	109
CTC	CTC	.	.	1926	.	.	1817	.	.	1820
COMM	COMM-CC	.	.	78	.	58	15	.	60	15
CCA	CCA-ADM	.	.	1925	.	.	2050	.	.	1963
	TOTAL	.	.	1925	.	.	2050	.	.	1963
ECC	ECC	.	.	7709	.	.	7776	.	.	8205
E&I	E&I-ADM	.	.	1424	.	.	.	.	.	.
	E&I-CEIC	.	.	670	.	.	.	.	.	.
	TOTAL	.	.	2093	.	.	.	.	.	.
EMR	EMR-MES	.	35	.	.	.	.	.	.	.
	TOTAL	.	35	.	.	.	.	.	.	.
ENV	ENV-ADM	.	.	.	.	.	.	.	.	40
	ENV-C&P	.	.	1024	.	.	1079	.	.	1131
	TOTAL	.	.	1024	.	.	1079	.	.	1171
F&O	F&O-FM	.	.	22	.	.	31	.	.	88
IAND	IAND-NA	.	.	88	.	.	99	.	.	103
IDRC	IDRC	.	.	8998	.	.	10055	.	.	10737
JUST	JUST-ADM	.	.	805	.	.	864	.	.	862
	JUST-LRC	.	.	606	.	.	655	.	.	658
	TOTAL	.	.	1431	.	.	1519	.	.	1520
LAB	LAB	.	.	124	.	.	.	.	.	.
NDEF	NDEF-SER	.	.	1603	.	.	1547	.	.	1588
NHW	NHW-HSS	.	.	475	.	.	500	.	.	635
	NHW-SS	.	.	252	.	.	245	.	.	264
	TOTAL	.	.	727	.	.	745	.	.	899
NMC	NMC	.	.	6049	.	.	7473	.	.	9249
NRE	NRE-TAP	.	.	175	.	.	188	.	.	207
SC	SC	.	.	1983	.	.	1277	.	.	1293
SECS	SECS-CIT	.	.	630	.	.	491	.	.	515
	SECS-ES	.	.	241	.	.	276	.	.	324
	SECS-OL	.	.	1781	.	.	1795	.	.	1915
	TOTAL	.	.	2652	.	.	2562	.	.	2755
SSHRC	SSHRC	.	.	3424	.	.	3230	.	.	3359
SGEN	SGEN-ADM	.	.	3830	.	.	3652	.	.	3891
STCAN	STCAN	.	.	10903	.	.	8746	.	.	9611

(CONTINUED)

TABLE 65

FEDERAL INTRAMURAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER INTRAMURAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SS	SS-SUB	.	.	.	.	.	.	.	.	2
TBT	TBT-SUB	.	.	101	.	.	99	.	.	98
	TOTAL	.	.	101	.	.	99	.	.	98
TOTAL	TOTAL	.	35	61444	.	58	58818	.	60	63521

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES, IN THE INDUSTRY SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
ALL PERFORMER CANADIAN INDUSTRY

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CMHC	CMHC	.	99	.	123	.	.	123	.	.
CLFB	CLFB	.	25	.	.		.	.	.	.
CRTC	CRTC	.	11	.	.	10	.	.	.	.
COMM	COMM-CC	.	.	.	.	55	.	.	55	.
CCA	CCA-ADM	.	281	.	.	470	.	.	470	.
	TOTAL	.	281	.	.	470	.	.	470	.
ECC	ECC	.	77	.	.	80	.	.	80	.
E&I	E&I-CEIC	.	111	.	.	.	.	.	.	.
	TOTAL	.	111	.	.	.	.	.	.	.
EMR	EMR-MES	.	.	.	600	.	.	545	.	.
	TOTAL	.	.	.	600	.	.	545	.	.
ENV	ENV-ADM	.	107	.	.	20	.	.	70	.
	ENV-C&P	.	205	.	.	205	.	.	205	.
	ENV-PC	.	73	.	.	76	.	.	79	.
	TOTAL	.	385	.	.	301	.	.	354	.
IAND	IAND-NA	90	.	.	143	.	.	150	.	.
JUST	JUST-ADM	.	327	.	.	974	.	.	618	.
	TOTAL	.	327	.	.	974	.	.	618	.
NHW	NHW-HSS	.	235	.	.	.	.	.	.	.
	TOTAL	.	235	.	.	.	.	.	.	.
SC	SC	.	103	.	.	200	.	.	156	.
SECS	SECS-CIT	.	228	.	.	213	.	.	174	.
	TOTAL	.	228	.	.	213	.	.	174	.
SGEN	SGEN-ADM	.	1000	.	.	1000	.	.	1000	.
SS	SS-SUPP	.	70	.	.	45	.	.	100	.
TPT	TPT-SUR	161	318	.	.	397	.	.	428	.
	TOTAL	161	318	.	.	397	.	.	428	.
TOTAL	TOTAL	251	3210	.	866	3745	.	818	3435	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES, IN THE UNIVERSITY SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
PERFORMER CANADIAN UNIVERSITY

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CC	CC	.	.	.	.	2	.	.	.	.
CMHC	CMHC	404	.	.	763	.	.	763	.	.
CIDA	CIDA	500	.	.	500	.	.	500	.	.
CCA	CCA-ADM	.	19	.	.	71	.	.	70	.
	TOTAL	.	19	.	.	71	.	.	70	.
ECC	ECC	.	5	.	.	10	.	.	10	.
E&I	E&I-ADM	.	56	.	.	.	.	.	.	.
	E&I-CEIC	.	89	.	.	.	.	.	.	.
	TOTAL	.	145	.	.	.	.	.	.	.
EMR	EMR-MES	196	.	.	195	.	.	182	.	.
	TOTAL	196	.	.	195	.	.	182	.	.
ENV	ENV-ADM	.	10	.	.	95	.	50	40	.
	ENV-C&P	44	4	.	44	4	.	44	4	.
	ENV-PC	.	40	.	.	42	.	.	44	.
	TOTAL	44	54	.	44	141	.	94	88	.
IAND	IAND-NA	248	.	.	248	.	.	248	.	.
IDRC	IDRC	1053	.	.	1177	.	.	1257	.	.
JUST	JUST-ADM	95	.	.	96	.	.	91	.	.
	TOTAL	95	.	.	96	.	.	91	.	.
LAB	LAB	40	.	.	40	.	.	.	.	.
NHW	NHW-HSS	4167	50	.	4730	.	.	4745	.	.
	NHW-SS	1017	.	.	717	.	.	459	.	.
	TOTAL	5184	50	.	5447	.	.	5204	.	.
PCO	PCO	65	.	.	65	.	.	65	.	.
SC	SC	.	30	.	.	15	.	.	15	.
SECS	SECS-CIT	875	78	.	875	77	.	875	72	.
	SECS-ES	1841	.	.	1032	.	.	.	.	.
	TOTAL	2716	78	.	1907	77	.	875	72	.
SSHRC	SSHRC	33121	.	.	39970	.	.	39184	.	.
SGEN	SGEN-ADM	645	750	.	645	750	.	645	750	.
TPT	TPT-SUR	43	24	.	9	43	.	10	42	.
	TOTAL	43	24	.	9	43	.	10	42	.
TOTAL	TOTAL	44374	1158	.	50108	1109	.	49118	1049	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES, IN THE NON-PROFIT INSTITUTE SECTOR BY DEPARTMENT AND PAYMENT TYPE , 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER CANADIAN N P INST

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CC	CC	.	2	.	.	2	.	.	2	.
CMHC	CMHC	91	230	.	738	.	.	738	.	.
EMR	EMR-MES	1250	.	.	2750	.	.	2727	.	.
	TOTAL	1250	.	.	2750	.	.	2727	.	.
ENV	ENV-ADM	.	5	.	.	5	.	.	10	.
	ENV-PC	.	11	.	.	11	.	.	12	.
	TOTAL	.	17	.	.	16	.	.	22	.
IDRC	IDRC	578	.	.	645	.	.	690	.	.
JUST	JUST-ADM	19	53	.	35	46	.	35	29	.
	JUST-LRC	.	8	.	.	12	.	.	10	.
	TOTAL	19	61	.	35	58	.	35	39	.
NHA	NHA-HSS	867	.	.	1050	.	.	1052	.	.
	NHA-SS	1040	.	.	1289	.	.	851	.	.
	TOTAL	1907	.	.	2339	.	.	1903	.	.
SC	SC	.	10	.	.	25	.	.	20	.
SECS	SECS-CIT	321	84	.	375	70	.	375	75	.
	TOTAL	321	84	.	375	70	.	375	75	.
SGEN	SGEN-ADM	3282	500	.	3300	400	.	3300	400	.
TPT	TPT-SUR	.	.	.	21	23	.	20	.	.
	TOTAL	.	.	.	21	23	.	20	.	.
TB	TB-ADM	153	.	.	159	.	.	153	.	.
TOTAL	TOTAL	8401	304	.	11360	594	.	10939	558	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES, IN THE PROVINCIAL AND MUNICIPAL GOVERNMENT SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER PROV. & MUN. GOV.

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CMHC	CMHC	25	.	.	65	.	.	65	.	.
E&I	E&I-CEIC	.	60	.	.	.	.	.	.	.
	TOTAL	.	60	.	.	.	.	.	.	.
IAND	IAND-NA	20	.	.	.	.	.	.	.	.
JUST	JUST-ADM	.	7	.	.	60	.	.	78	.
	TOTAL	.	7	.	.	60	.	.	78	.
NCC	NCC	.	10	.	.	10	.	.	10	.
SGEN	SGEN-ADM	750	300	.	800	400	.	800	400	.
TOTAL	TOTAL	795	379	.	945	470	.	945	488	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES, IN THE FOREIGN SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
ANC PERFORMER FOREIGN PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CC	CC	.	6	.	.	6	.	.	7	.
CIDA	CIDA	1900	.	.	1920	.	.	2150	.	.
CCA	CCA-ADM	.	.	.	.	15	.	.	15	.
	TOTAL	.	.	.	.	15	.	.	15	.
EMR	EMR-MES	35	.	.	.	.	.	.	.	.
	TOTAL	35	.	.	.	.	.	.	.	.
ENV	ENV-C&P	.	10	.	.	10	.	.	10	.
	ENV-PC	.	2	.	.	2	.	.	2	.
	TOTAL	.	12	.	.	12	.	.	12	.
IDRC	IDRC	17218	.	.	19240	.	.	20546	.	.
NHW	NHW-HSS	340	.	.	390	.	.	390	.	.
	TOTAL	340	.	.	390	.	.	390	.	.
SC	SC	.	17	.	.	10	.	.	12	.
SSHRC	SSHRC	2550	.	.	2468	.	.	2640	.	.
TOTAL	TOTAL	22045	35	.	24018	43	.	25726	46	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES IN THE OTHER SECTOR BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER OTHER PERFORMERS

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CMHC	CMHC	.	294	.	264	20	.	414	20	.
CLFB	CLFB	.	20	.	.	20	.	.	20	.
CCA	CCA-ADM	.	.	.	.	15	.	.	15	.
	TOTAL	.	.	.	.	15	.	.	15	.
ECC	ECC	.	227	.	.	250	.	.	250	.
ENV	ENV-C&P	.	78	.	.	78	.	.	78	.
	ENV-PC	.	192	.	.	200	.	.	208	.
	TOTAL	.	270	.	.	278	.	.	286	.
IDRC	IDRC	344	.	.	384	.	.	410	.	.
JUST	JUST-ADM	.	95	.	.	214	.	.	186	.
	JUST-LRC	.	1530	.	.	1496	.	.	1559	.
	TOTAL	.	1625	.	.	1710	.	.	1745	.
LAB	LAB	62	.	.	62	.	.	62	.	.
NHW	NHW-HSS	.	83	.	.	.	.	.	.	.
	TOTAL	.	83	.	.	.	.	.	.	.
NMC	NMC	.	234	.	.	272	.	.	335	.
PCO	PCO	5	.	.	25	.	.	25	.	.
SC	SC	.	167	.	.	77	.	.	137	.
SECS	SECS-DIT	504	198	.	515	308	.	460	311	.
	TOTAL	504	198	.	515	308	.	460	311	.
SGEN	SGEN-ADM	200	.	.	100	.	.	100	.	.
TOTAL	TOTAL	1115	3118	.	1950	2850	.	1471	3115	.

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
ALL PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
CC	CC	.	9	123	.	10	129	.	10	133
CMHC	CMHC	1361	563	3958	3537	22	4193	3687	22	4223
CIDA	CIDA	2400	.	394	2420	.	438	2650	.	483
CLFB	CLFB	.	45	103	.	20	98	.	20	109
CRTC	CRTC	.	11	.	.	10	.	.	.	.
CTC	CTC	.	.	1926	.	.	1817	.	.	1820
COMM	COMM-CC	.	.	78	.	113	15	.	115	15
CCA	CCA-ADM	.	300	1925	.	571	2050	.	570	1963
	TOTAL	.	300	1925	.	571	2050	.	570	1963
ECC	ECC	.	309	7709	.	340	7775	.	340	8205
E&I	E&I-ADM	.	56	1424	.	.	.	.	.	.
	E&I-CEIC	.	262	670	.	.	.	.	.	.
	TOTAL	.	318	2093	.	.	.	.	.	.
EMR	EMR-MES	1481	35	.	3545	.	.	3454	.	.
	TOTAL	1481	35	.	3545	.	.	3454	.	.
ENV	ENV-ADM	.	123	.	.	120	.	50	120	40
	ENV-C&P	44	297	1024	44	297	1079	44	297	1131
	ENV-PC	.	318	.	.	331	.	.	345	.
	TOTAL	44	738	1024	44	748	1079	94	752	1171
F&O	F&O-FM	.	.	22	.	.	31	.	.	66
LAND	LAND-NA	358	.	68	391	.	99	398	.	103
IDRC	IDRC	19193	.	8998	21447	.	10055	22903	.	10737
JUST	JUST-ADM	114	482	825	131	1294	864	126	911	862
	JUST-LRC	.	1538	606	.	1508	655	.	1569	658
	TOTAL	114	2020	1431	131	2802	1519	126	2480	1520
LAB	LAB	102	.	124	102	.	.	62	.	.
NCC	NCC	.	10	.	.	10	.	.	10	.
NDEF	NDEF-SER	.	.	1603	.	.	1547	.	.	1588
NHW	NHW-HSS	5376	358	475	6170	.	500	6167	.	635
	NHW-SS	2057	.	252	2006	.	245	1310	.	264
	TOTAL	7433	368	727	8176	.	745	7497	.	899
NMC	NMC	.	234	6049	.	272	7473	.	335	9249
NREV	NREV-TAX	.	.	175	.	.	188	.	.	207
PCO	PCO	70	.	.	90	.	.	90	.	.
SC	SC	.	329	1983	.	327	1277	.	335	1293
SECS	SECS-CIT	1700	588	630	1765	668	491	1710	632	515
	SECS-ES	1841	.	241	1032	.	276	.	.	324
	SECS-OL	.	.	1781	.	.	1795	.	.	1915

(CONTINUED)

FEDERAL EXPENDITURES ON RESEARCH AND DEVELOPMENT IN THE HUMAN SCIENCES BY DEPARTMENT AND PAYMENT TYPE, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND PERFORMER TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		PAYMENT TYPE			PAYMENT TYPE			PAYMENT TYPE		
		GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER	GRANTS	CONTRACTS	OTHER
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
SEDS	TOTAL	3541	588	2652	2797	668	2582	1710	830	2758
SSHRC	SSHRC	35871	.	3424	41440	.	3230	41824	.	3359
SGEN	SGEN-ADM	4677	2550	3930	4845	2550	3652	4845	2550	3891
STCAN	STCAN	.	.	10903	.	.	8746	.	.	9611
SS	SS-SUPP	.	70	.	.	45	.	.	100	2
TPT	TPT-SUR	204	342	101	30	463	99	30	470	98
	TOTAL	204	342	101	30	463	99	30	470	98
TB	TB-ADM	153	.	.	158	.	.	153	.	.
TOTAL	TOTAL	77002	8839	61444	89153	8971	58816	89523	8751	63521

TABLE 73

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES IN THE HUMAN SCIENCES BY PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND ACTIVITY RSA

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	536292	87	650018	88	587202	87
CANADIAN INDUSTR.	13235	2	12197	2	11995	2
CANADIAN UNIVERSIT.	24239	4	26015	4	25467	4
CANADIAN N P INST	11430	2	11228	2	11461	2
PROV. & MUN. GOV T	14168	2	22569	3	23274	3
FOREIGN PERFORMERS	9779	2	11065	1	10377	2
OTHER PERFORMERS	6609	1	7062	1	7485	1
TOTAL	615752	100	740154	100	677261	100

TABLE 74

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES IN THE HUMAN SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND ACTIVITY RSA

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
AGR	AGR-DEV	3372	60	3432	2959	80	3039	3005	80	3085
	TOTAL	3372	60	3432	2959	80	3039	3005	80	3085
CC	CC	137	3	140	142	3	145	148	3	151
CMHC	CMHC	7149	2712	9861	7784	2706	10490	7822	2947	10769
CBC	CBC	2254	3111	5365	1675	3120	4795	1367	3428	4795
CHRC	CHRC	419	56	475	472	75	547	553	100	653
CIDA	CIDA	3010	1099	4109	2727	1148	3875	3003	1613	4616
CLFB	CLFB	29	.	29	29	.	29	27	.	27
CTC	CTC	1721	.	1721	1706	.	1706	1708	.	1708
COL	COL	3215	.	3215	3296	.	3296	3332	.	3332
COMM	COMM-CC	114	1363	1477	183	915	1098	189	972	1161
CCA	CCA-ADM	556	497	1053	504	356	860	524	350	874
	CCA-CON	3347	.	3347	3532	.	3532	4128	.	4128
	TOTAL	3904	497	4401	4035	356	4391	4652	350	5002
ECC	ECC	1377	.	1377	1489	.	1489	1503	.	1503
E&I	E&I-ADM	17267	1219	18486	16483	257	16740	17050	265	17315
	E&I-CEIC	5766	177	5943	7319	655	7974	7312	451	7763
	TOTAL	23033	1396	24429	23802	912	24714	24362	716	25078
EMR	EMR-MES	11929	7286	19215	13621	14685	28306	16662	14725	31387
	TOTAL	11929	7286	19215	13621	14685	28306	16662	14725	31387
ENV	ENV-CSP	4902	303	5205	5150	303	5453	5389	303	5692
	ENV-PC	7130	356	7486	7433	370	7803	7583	385	7974
	TOTAL	12033	659	12692	12583	673	13256	12978	688	13666
EA	EA-CIA	8387	3451	11838	8943	3929	12872	9257	4250	13507
FIN	FIN-FEP	16590	.	16590	18745	.	18745	20711	.	20711
F&O	F&O-FM	5665	2461	8126	5317	2041	7358	5530	2005	7535
IAND	IAND-NA	192	168	360	215	101	316	207	30	237
IDRC	IDRC	9794	3814	13608	10943	4260	15203	11686	4548	16234
JUST	JUST-ADM	1208	1738	2946	981	2629	3610	969	1582	2551
	JUST-LRC	470	380	850	522	370	892	532	350	882
	TOTAL	1678	2118	3796	1503	2999	4502	1501	1932	3433
LAB	LAB	5519	1105	6624	4119	183	4302	4350	160	4510
NCC	NCC	369	102	471	448	40	488	469	50	519
NDEF	NDEF-SER	1728	107	1835	1842	81	1923	1874	120	1994
NEB	NEB	1902	.	1902	2073	.	2073	2366	.	2366
NHW	NHW-ADM	9032	2024	11056	10983	2104	13087	10861	1554	12415
	NHW-HSS	360	2957	3317	393	3530	3923	454	3552	4006
	NHW-IS	1200	47	1247	1455	275	1730	1536	.	1536

(CONTINUED)

TABLE 74

FEDERAL EXPENDITURES ON RELATED SCIENTIFIC ACTIVITIES IN THE HUMAN SCIENCES BY DEPARTMENT AND INTRAMURAL/EXTRAMURAL PERFORMER, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND ACTIVITY RSA

		YEAR								
		1985-86			1986-87			1987-88		
		PERFORMER			PERFORMER			PERFORMER		
		INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL	INTRAMURAL	EXTRAMURAL	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
DEPARTMENT	PROGRAM									
NHW	NHW-MS	.	1418	1418	.	1500	1500	.	1500	1500
	NHW-SS	536	4331	4867	520	4360	4880	560	5176	5736
	TOTAL	11128	10777	21905	13351	11769	25120	13411	11782	25193
NLC	NLC	42012	36	42050	44472	61	44533	44749	65	44814
NMC	NMC	44990	10028	55018	53315	11041	64356	63034	13083	76117
NREV	NREV-TAX	2784	.	2784	2627	.	2627	2877	.	2877
PA	PA	20594	.	20594	23498	.	23498	19200	.	19200
RIE	RIE	506	3087	3593	574	3418	3992	596	3550	4146
ST	ST	8384	.	8384	12787	.	12787	12408	.	12408
SC	SC	2325	.	2325	1453	.	1453	1386	.	1386
SECS	SECS-ADM	456	94	550	774	178	952	763	178	941
	SECS-CIT	.	83	83	.	56	56	.	.	.
	SECS-OL	249	370	619	251	387	638	267	412	679
	TOTAL	705	547	1252	1025	621	1646	1030	590	1620
SSHRC	SSHRC	3005	21563	24568	2984	22984	25968	3100	20455	23555
SGEN	**SGEN-ADM**	**1182**	**1475**	**2657**	**1317**	**1400**	**2717**	**1397**	**1400**	**2797**
STCAN	STCAN	251569	94	251763	341001	98	341099	262673	48	262721
SS	SS-SUPP	2	132	134	4	275	279	4	200	204
TPT	TPT-ADM	41	111	152	42	120	162	40	125	165
	TPT-SUR	106	40	146	111	42	153	114	44	158
	TOTAL	147	151	298	153	162	315	154	169	323
TB	TB-ADM	21340	.	21340	20805	.	20805	21922	.	21922
TOTAL	TOTAL	536292	79460	615752	650018	90136	740154	587202	90059	677261

TABLE 75

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES BY ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	38	346	80	49	120	.	20	656
INTRAMURAL RSA	315	2070	1585	1460	2868	175	12	8434
ADMIN. OF EXTRAMURAL PROGRAMS	24	122	115	8	136	.	.	405
TOTAL	377	2539	1732	1517	3123	175	32	9495

SCIENCE TYPE HUMAN
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	30	287	79	39	102	.	20	557
INTRAMURAL RSA	345	2151	1414	1542	2740	159	12	8363
ADMIN. OF EXTRAMURAL PROGRAMS	21	124	109	8	135	.	.	397
TOTAL	397	2562	1602	1588	2977	159	32	9317

SCIENCE TYPE HUMAN
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	30	311	82	40	86	.	20	569
INTRAMURAL RSA	341	2153	1412	1556	2593	145	12	8201
ADMIN. OF EXTRAMURAL PROGRAMS	23	123	105	8	132	.	.	391
TOTAL	394	2586	1599	1604	2801	145	32	9161

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES BY DEPARTMENT AND CATEGORY, 1985-86

SCIENCE TYPE: HUMAN
ANC YEAR: 1985-86

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		P-Y	P-Y	P-Y	P-Y	P-Y	P-Y	P-Y	P-Y
DEPARTMENT	PROGRAM								
AGR	AGR-DEV	1	33	12	2	16	.	.	64
	TOTAL	1	33	12	2	16	.	.	64
CC	CC	2	2	.	2	1	.	.	7
CMHC	CMHC	2	89	.	2	51	.	.	144
CBC	CBC	4	22	1	21	1	.	.	49
CHRC	CHRC	1	3	3	.	1	.	.	8
CIDA	CIDA	1	3	26	3	8	.	.	41
CLFB	CLFB	0	1	.	.	1	.	.	2
CTC	CTC	3	45	.	9	9	.	.	66
COL	COL	6	.	41	.	12	.	.	59
COMM	COMM-CC	.	4	.	.	.	.	.	4
CCA	CCA-ADM	4	33	1	2	7	.	.	47
	CCA-CON	1	10	8	35	8	3	.	65
	TOTAL	5	43	9	37	15	3	.	112
ECC	ECC	3	52	26	17	34	.	.	132
E&I	E&I-ADM	7	106	9	30	55	.	.	207
	E&I-CEIC	4	113	2	4	44	.	.	167
	TOTAL	11	219	11	34	99	.	.	374
EMR	EMR-MES	5	91	19	14	36	.	.	165
	TOTAL	5	91	19	14	36	.	.	165
ENV	ENV-C&P	1	19	9	16	12	1	.	58
	ENV-PC	.	54	7	74	32	2	.	169
	TOTAL	1	73	16	90	44	3	.	227
EA	EA-CIA	16	10	51	.	34	.	.	111
FIN	FIN-FEP	25	132	24	18	51	.	.	249
F&O	F&O-FM	9	95	12	19	37	.	.	169
IAND	IAND-NA	.	3	.	.	2	.	.	5
IDRC	IDRC	4	55	19	48	55	.	.	181
JUST	JUST-ADM	3	12	6	.	11	.	.	31
	JUST-LRC	3	2	6	1	18	.	.	30
	TOTAL	6	14	12	1	29	.	.	61
LAB	LAB	3	34	13	40	13	.	.	103
NCC	NCC	.	6	4	.	.	.	.	10
NDEF	NDEF-SER	.	17	6	.	14	.	32	69
NEB	NEB	4	25	.	2	5	.	.	36
NHW	NHW-ADM	11	60	10	39	30	.	.	150
	NHW-HSS	1	6	5	.	3	.	.	15
	NHW-IS	2	9	10	1	1	.	.	24
	NHW-SS	2	7	.	.	5	.	.	14

(CONTINUED)

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES BY DEPARTMENT AND CATEGORY, 1985-86

SCIENCE TYPE HUMAN
AND YEAR 1985-86

		CATEGOR							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERA S	MILITAR	TOTAL
		P. S	P. S	P. S	P. S	P. S	P. S	P. S	P. S
DEPARTMENT	PROGRAM								
NHA	TOTAL	16	83	25	40	40	.	.	203
NLC	NLC	11	210	54	50	221	1	.	545
NMC	NMC	30	73	164	177	128	117	.	689
NRE.	NRE./-TA-	2	60	.	.	.	.	.	62
PL	PL	9	109	12	76	89	.	.	295
RIE	RIE	.	.	3	.	1	.	.	4
ST	ST	37	5	24	.	31	.	.	97
SC	SC	6	10	24	.	10	.	.	50
SECS	SECS-ADM	1	4	1	.	.	.	.	6
	SECS-CIT	1	4	.	1	2	.	.	8
	SECS-ES	.	2	.	1	0	.	.	3
	SECS-OL	.	.	42	.	4	.	.	46
	TOTAL	2	10	43	2	6	.	.	63
SSHRC	SSHRC	11	2	45	.	49	.	.	107
SGEN	SGEN-ADM	6	77	3	5	25	3	.	119
STCAN	STCAN	85	810	904	802	1019	48	.	4569
SS	SS-SUPP	0	.	0	.	0	.	.	0
TPT	TPT-ADM	.	1	.	.	.	.	.	1
	TPT-SUR	1	0	0	1	.	0	.	2
	TOTAL	1	1	0	1	.	0	.	3
TB	TB-ADM	50	18	128	3	37	.	.	236
TOTAL	TOTAL	377	2538	1732	1517	3123	175	33	9495

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES BY DEPARTMENT AND CATEGORY, 1986-87

SCIENCE TYPE: HUMAN
YEAR: 1986-87

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERA'S	MILITARY	TOTAL
		P-Y'S	P-Y'S	P-Y'S	P-Y'S	P-Y'S	P-Y'S	P-Y'S	P-Y'S
DEPARTMENT	PROGRAM								
AGR	AGR-DEV	1	33	4	2	14	.	.	54
	TOTAL	1	33	4	2	14	.	.	54
CC	CC	2	2	.	2	.	.	.	7
CMHC	CMHC	2	86	.	3	63	.	.	154
CBC	CBC	4	22	1	21	1	.	.	49
CHRC	CHRC	1	3	3	.	1	.	.	8
CIDA	CIDA	1	3	26	3	8	.	.	41
CLFB	CLFB	0	1	.	.	1	.	.	2
CTC	CTC	3	39	.	8	8	.	.	58
COL	COL	7	.	42	.	12	.	.	61
COMM	COMM-CC	1	3	.	.	.	.	.	4
CCA	CCA-ADM	4	33	1	2	7	.	.	47
	CCA-CON	1	10	8	33	9	3	.	64
	TOTAL	5	43	9	35	16	3	.	111
ECC	ECC	3	50	26	17	32	.	.	128
E&I	E&I-ADM	.	113	9	30	51	.	.	203
	E&I-CEIC	6	125	2	11	31	8	.	183
	TOTAL	6	238	11	41	82	8	.	386
EMR	EMR-MES	5	93	19	14	37	.	.	168
	TOTAL	5	93	19	14	37	.	.	168
EN-	EN--C&P	1	22	9	17	13	1	.	63
	EN--PC	.	54	7	74	32	2	.	169
	TOTAL	1	75	16	91	45	3	.	232
EA	EA-CIA	19	10	46	.	33	.	.	108
FIN	FIN-FEP	33	153	24	24	45	.	.	279
F&O	F&O-FM	9	63	22	14	37	.	.	143
IAND	IAND-NA	.	3	.	.	2	.	.	5
IDRC	IDRC	5	60	19	48	61	.	.	192
JUST	JUST-ADM	2	14	4	.	11	.	.	31
	JUST-LRC	3	3	5	11	17	.	.	29
	TOTAL	5	17	9	1	28	.	.	60
LAB	LAB	3	25	4	24	11	.	.	67
NCC	NCC	.	7	5	.	.	.	.	12
NDEF	NDEF-SER	.	17	6	.	14	.	32	69
NEB	NEB	3	26	.	2	5	.	.	36
NHW	NHW-ADM	12	65	10	37	31	.	.	155
	NHW-HSS	1	6	5	.	3	.	.	15
	NHW-IS	3	10	10	3	1	.	.	27
	NHW-SS	1	7	1	.	4	.	.	13

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FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES BY DEPARTMENT AND CATEGORY, 1986-87

SCIENCE TYPE HUMAN
ANY EAP '86-87

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERA. &	MILITARY	TOTAL
		P-Y $	P-Y $	P-Y $	P-Y $	P-Y $	P-Y $	P-Y $	P-Y $
DEPARTMENT	PROGRAM								
AHA	TOTAL	16	88	28	40	39	.	.	210
ALC	ALC	12	139	53	54	219	*	.	530
NMC	NMC	26	96	165	200	129	192	.	708
NRE-	NRE-TAP	2	54	.	.	.	.	.	56
PA	PA	9	110	9	78	87	.	.	293
RIE	RIE	.	.	4	.	.	.	.	5
ST	ST	38	10	33	1	42	.	.	124
SC	SC	5	7	15	.	3	.	.	30
SECS	SECS-ADM	1	5	*	.	.	.	.	7
	SECS-CIT	1	4	.	1	2	.	.	8
	SECS-ES	.	2	.	*	0	.	.	3
	SECS-OL	.	.	42	.	4	.	.	46
	TOTAL	2	11	43	2	6	.	.	64
SSHRC	SSHRC	10	2	46	.	45	.	.	103
SGEN	SGEN-ADM	6	58	3	5	24	3	.	99
STCAN	STCAN	102	845	788	857	1801	34	.	4427
SS	SS-SUPP	0	.	0	.	0	.	.	0
TPT	TPT-ADM	.	1	.	.	.	.	.	*
	TPT-SUR	1	0	0	1	.	0	.	2
	TOTAL	1	1	0	1	.	0	.	3
TB	TB-ADM	51	17	124	1	35	.	.	229
TOTAL	TOTAL	397	2562	1602	1588	2977	159	90	9317

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES BY DEPARTMENT AND CATEGORY, 1987-88

SCIENCE TYPE HUMAN
FIS YEAR 1987-88

		CATEGORY							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
		PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
DEPARTMENT	PROGRAM								
AGR	AGR-DEV	1	33	4	2	14	.	.	54
	TOTAL	1	33	4	2	14	.	.	54
CC	CC	2	2	.	2	1	.	.	7
CMHC	CMHC	2	86	.	1	55	.	.	144
CBC	CBC	4	22	1	21	1	.	.	49
CHRC	CHRC	1	4	3	.	2	.	.	10
CIDA	CIDA	1	3	26	3	8	.	.	41
CLFB	CLFB	0	1	.	.	1	.	.	2
CTC	CTC	3	39	.	8	8	.	.	58
COL	COL	6	.	45	.	10	.	.	61
COMM	COMM-CC	1	3	.	.	.	.	.	4
CCA	CCA-ADM	4	33	1	2	7	.	.	47
	CCA-CON	1	7	6	38	9	3	.	64
	TOTAL	5	40	7	40	16	3	.	111
ECC	ECC	4	49	27	19	27	.	.	126
E&I	E&I-ADM	.	113	9	30	51	.	.	203
	E&I-CEIC	5	121	2	10	32	9	.	179
	TOTAL	5	234	11	40	83	9	.	382
EMP	EMP-MES	5	101	20	14	41	.	.	181
	TOTAL	5	101	20	14	41	.	.	181
ENV	ENV-ADM	0	1	.	.	0	.	.	1
	ENV-C&P	1	24	9	19	14	1	.	68
	ENV-PC	.	54	7	74	30	2	.	169
	TOTAL	1	79	16	93	46	3	.	238
EA	EA-CIA	19	10	46	.	33	.	.	108
FIN	FIN-FEP	32	145	27	23	45	.	.	275
F&O	F&O-FM	9	58	25	13	33	.	.	137
IAND	IAND-NA	.	3	.	.	2	.	.	5
IDRC	IDRC	5	60	19	48	61	.	.	192
JUST	JUST-ADM	2	14	5	.	11	.	.	32
	JUST-LRC	3	3	5	1	17	.	.	29
	TOTAL	5	17	10	1	28	.	.	61
LAB	LAB	3	21	.	23	18	.	.	65
NCC	NCC	.	8	5	.	.	.	.	13
NDEF	NDEF-SER	.	17	6	.	15	.	32	70
NEB	NEB	4	27	.	3	6	.	.	40
NHA	NHA-ADM	12	64	9	35	31	.	.	151
	NHA-HSS	1	6	5	.	3	.	.	15
	NHA-IS	2	9	10	4	2	.	.	26

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FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES BY DEPARTMENT AND CATEGORY, 1987-88

SCIENCE TYPE HUMAN
AND YEAR 1987-88

		CATEGOR-							
		EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITAR-	TOTAL
		P- S	P- S	P- S	P- S	P- S	P- S	P- S	P-'S
DEPARTMENT	PROGRAM								
NHW	NHW-SS	1	7	4	.	4	.	.	13
	TOTAL	15	66	24	39	40	.	.	205
NLC	NLC	13	189	51	55	213	.	.	521
NMC	NMC	28	110	182	205	127	102	.	754
NREV	NREV-TAX	2	54	.	.	.	.	.	56
PA	PA	8	105	15	70	77	.	.	275
RIE	RIE	.	.	4	.	1	.	.	5
ST	ST	38	9	28	1	38	.	.	114
SC	SC	5	7	15	.	3	.	.	30
SECS	SECS-ADM	1	5	1	.	.	.	.	7
	SECS-CIT	1	4	.	1	2	.	.	8
	SECS-ES	.	3	.	1	.	.	.	4
	SECS-OL	.	.	42	.	4	.	.	46
	TOTAL	2	12	43	2	6	.	.	65
SSHRC	SSHRC	11	1	43	.	40	.	.	95
SGEN	SGEN-ADM	6	58	3	5	24	3	.	99
STCAN	STCAN	101	874	773	871	1644	25	.	4288
SS	SS-SUP?	0	.	0	.	0	.	.	0
TPT	TPT-ADM	.	1	.	.	.	.	.	1
	TPT-SUR	1	0	0	1	.	0	.	2
	TOTAL	1	1	0	1	.	0	.	3
TB	TB-ADM	45	15	121	1	34	.	.	216
TOTAL	TOTAL	394	2586	1593	1604	2801	145	32	9161

TABLE 77

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE AND R&D/RSA ACTIVITY, 1985-86

YEAR 1985-86

ENVELOPE	SCIENCE TYPE																	
	NATURAL						HUMAN						TOTAL					
	ACTIVITY						ACTIVITY						ACTIVITY					
	R&D		RSA		TOTAL		R&D		RSA		TOTAL		R&D		RSA		TOTAL	
	$ .000		$ .000		$ .000		$ .000		$ .000		$ .000		$ .000		$ .000		$ .000	
	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%
ECONOMIC & REGIONAL DEVELOPMENT	1862964	78	379327	47	2242291	71	9170	6	73498	12	82668	11	1872134	74	452825	32	2324959	59
SOCIAL DEVELOPMENT	252236	11	378436	47	630672	20	86198	59	225162	37	311360	41	338434	13	603598	43	942032	24
EXTERNAL AFFAIRS & AID	52098	2	36463	5	88561	3	30985	21	17717	3	48702	6	83083	3	54181	4	137263	3
DEFENCE	208796	9	1934	0	210730	7	1603	1	1835	0	3438	0	210399	8	3769	0	214168	5
SERVICE TO GOVERNMENT	2763	0	2634	0	5398	0	19329	13	297540	48	316868	42	22092	1	300174	21	322266	8
TOTAL	2378857	100	798795	100	3177652	100	147285	100	615752	100	763037	100	2526142	100	1414547	100	3940689	100

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE AND R&D/RSA ACTIVITY, 1986-87

YEAR 1986-87

	SCIENCE TYPE																	
	NATURAL						HUMAN						TOTAL					
	ACTIVITY						ACTIVITY						ACTIVITY					
	R&D		RSA		TOTAL		R&D		RSA		TOTAL		R&D		RSA		TOTAL	
	$ .000		$ .000		$ .000		$ .000		$ .000		$ .000		$ .000		$ .000		$ .000	
	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%
ENVELOPE																		
ECONOMIC & REGIONAL DEVELOPMENT	1890921	78	394653	46	2285575	69	10603	7	84000	11	94603	11	1901524	73	478653	30	2380177	57
SOCIAL DEVELOPMENT	262262	11	420283	49	682545	21	93123	59	246604	33	339727	38	355385	14	666887	42	1022272	24
EXTERNAL AFFAIRS & AID	58117	2	38552	4	96668	3	34360	22	19078	3	53438	6	92477	4	57629	4	150106	4
DEFENCE	218023	9	2011	0	220034	7	1547	1	1923	0	3470	0	219570	8	3934	0	223504	5
SERVICE TO GOVERNMENT	2561	0	4273	0	6834	0	17308	11	388549	52	405857	45	19870	1	392822	25	412692	10
TOTAL	2431884	100	859772	100	3291656	100	156942	100	740154	100	897095	100	2588826	100	1599925	100	4188751	100

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE AND R&D/RSA ACTIVITY, 1987-88

YEAR 1987-88

ENVELOPE	SCIENCE TYPE																	
	NATURAL						HUMAN						TOTAL					
	ACTIVITY						ACTIVITY						ACTIVITY					
	R&D		RSA		TOTAL		R&D		RSA		TOTAL		R&D		RSA		TOTAL	
	$ .000		$ .000		$ .000		$ .000		$ .000		$ .000		$ .000		$ .000		$ .000	
	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%
ECONOMIC & REGIONAL DEVELOPMENT	1844225	76	391293	44	2235518	68	10544	7	88754	13	99299	12	1854769	72	480046	31	2334817	56
SOCIAL DEVELOPMENT	268466	11	432658	49	701124	21	94275	58	252077	37	346352	41	362741	14	684736	44	1047476	25
EXTERNAL AFFAIRS & AID	62948	3	51457	6	114405	3	36773	23	20850	3	57623	7	99721	4	72307	5	172028	4
DEFENCE	240390	10	2708	0	243098	7	1588	1	1994	0	3582	0	241977	9	4702	0	246680	6
SERVICE TO GOVERNMENT	2523	0	4289	0	6811	0	18616	12	313585	46	332201	40	21139	1	317874	20	339012	8
TOTAL	2418551	100	882405	100	3300956	100	161795	100	677261	100	839056	100	2580346	100	1559667	100	4140013	100

TABLE 78

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE AND PERFORMER, 1985-86 TO 1987-88

ENVELOPE ECONOMIC & REGIONAL DEVELOPMENT

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	1458371	63	1490377	63	1442115	62
CANADIAN INDUSTRY	433420	19	436746	18	425279	18
CANADIAN UNIVERSITY	347765	15	353089	15	357920	15
CANADIAN N P INST	8579	0	10628	0	11424	0
PROV. & MUN. GOV'T	18264	1	28319	1	37017	2
FOREIGN PERFORMERS	39602	2	37684	2	37237	2
OTHER PERFORMERS	18958	1	22734	1	23825	1
TOTAL	2324959	100	2380177	100	2334817	100

ENVELOPE SOCIAL DEVELOPMENT

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	617306	66	676672	66	704286	67
CANADIAN INDUSTRY	23636	3	24498	2	24249	2
CANADIAN UNIVERSITY	230891	25	244633	24	241306	23
CANADIAN N P INST	24500	3	26134	3	25938	2
PROV. & MUN. GOV'T	15395	2	17996	2	19362	2
FOREIGN PERFORMERS	13796	1	15446	2	14600	1
OTHER PERFORMERS	16508	2	16893	2	17735	2
TOTAL	942032	100	1022272	100	1047476	100

ENVELOPE EXTERNAL AFFAIRS & AID

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	33561	24	36781	25	38425	23
CANADIAN INDUSTRY	28508	21	29861	20	41980	24
CANADIAN UNIVERSITY	5163	4	5599	4	6542	4
CANADIAN N P INST	857	1	958	1	1023	1
PROV. & MUN. GOV'T	10	0	.	.	.	.
FOREIGN PERFORMERS	68355	50	76125	51	82223	48
OTHER PERFORMERS	709	1	782	1	838	0
TOTAL	137263	100	150106	100	172028	100

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE AND PERFORMER, 1985-86 TO 1987-88

ENVELOPE DEFENCE

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	126906	59	137807	62	138675	56
CANADIAN INDUSTRY	71107	33	72027	32	92061	37
CANADIAN UNIVERSITY	7619	4	8004	4	8118	3
FOREIGN PERFORMERS	6992	3	4741	2	6901	3
OTHER PERFORMERS	1544	1	925	0	925	0
TOTAL	214168	100	223504	100	246680	100

ENVELOPE SERVICE TO GOVERNMENT

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	319132	99	408167	99	334601	99
CANADIAN INDUSTRY	2256	1	3675	1	3625	1
CANADIAN UNIVERSITY	155	0	135	0	135	0
CANADIAN N P INST	233	0	228	0	213	0
PROV. & MUN. GOV'T	12	0	10	0	10	0
FOREIGN PERFORMERS	150	0	128	0	78	0
OTHER PERFORMERS	328	0	349	0	350	0
TOTAL	322266	100	412692	100	339012	100

TOTAL

	YEAR					
	1985-86		1986-87		1987-88	
	$ .000		$ .000		$ .000	
	$	%	$	%	$	%
PERFORMER						
INTRAMURAL	2555277	65	2749804	66	2659099	64
CANADIAN INDUSTRY	559027	14	566809	14	587191	14
CANADIAN UNIVERSITY	591593	15	611460	15	614021	15
CANADIAN N P INST	34169	1	37946	1	38598	1
PROV. & MUN. GOV'T	33681	1	46925	1	56389	1
FOREIGN PERFORMERS	128895	3	134124	3	141039	3
OTHER PERFORMERS	38047	1	41683	1	43676	1
TOTAL	3940689	100	4188751	100	4140013	100

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE, DEPARTMENT AND SCIENCE TYPE, 1985-86 TO 1987-88

		YEAR								
		1985-86			1986-87			1987-88		
		SCIENCE TYPE			SCIENCE TYPE			SCIENCE TYPE		
		NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
ECONOMIC & REGIONAL DEVELOPMENT	AGR-ADM	6643	.	6643	6593	.	6593	6802	.	6802
	AGR-FOR	77003	.	77003	84107	.	84107	79667	.	79667
	AGR-CGC	6222	.	6222	7515	.	7515	7840	.	7840
	AGR-DEV	282779	3432	286211	275529	3039	278568	271015	3085	274100
	AGR-RI	27383	.	27383	24299	.	24299	22265	.	22265
	AGR-GO	1788	.	1788	.	.	.	.	.	.
	AECB	2727	.	2727	3960	.	3960	4145	.	4145
	AECL	140092	.	140092	155332	.	155332	141886	.	141886
	CLFB	.	177	177	.	147	147	.	156	156
	CTC	.	3647	3647	.	3523	3523	.	3528	3528
	COMM-CC	76247	1555	77801	64687	1226	65913	49379	1291	50670
	CCA-ADM	.	3278	3278	.	3460	3460	.	3407	3407
	CCA-CON	.	3347	3347	.	3532	3532	.	4128	4128
	CCA-CGR	13770	.	13770	14097	.	14097	16618	.	16618
	EMR-ENER	53771	.	53771	41315	.	41315	44445	.	44445
	EMR-MES	313417	20731	334148	318554	31851	350405	319580	34841	354422
	EA-CIA	.	11838	11838	.	12872	12872	.	13507	13507
	F&O-FM	249401	8148	257549	226262	7390	233652	197774	7622	205397
	LAB	.	6851	6851	.	4404	4404	.	4572	4572
	NEB	367	1902	2269	397	2073	2469	407	2366	2773
	NRC-SIR	397069	.	397069	464546	.	464546	449380	.	449380
	NRC-STI	26842	.	26842	.	.	.	.	.	.
	NSERC	311302	.	311302	320740	.	320740	331687	.	331687
	RIE	199217	3593	202810	217024	3992	221016	226119	4146	230265
	ST	4791	8384	13175	8485	12787	21272	15894	12408	28302
	SC	.	4637	4637	.	3057	3057	.	3014	3014
	SS-SUPP	14985	204	15189	13872	324	14196	12898	306	13204
	TPT-ADM	23183	152	23335	23635	162	23797	23735	165	23900
	TPT-AIR	4746	.	4746	5050	.	5050	5837	.	5837
	TPT-MAR	7394	.	7394	8394	.	8394	6925	.	6925
	TPT-SUR	1153	793	1946	1182	745	1927	1218	756	1974
	TOTAL	2242291	82668	2324959	2285575	94603	2380177	2235518	99299	2334817
SOCIAL DEVELOPMENT	CC	.	272	272	.	283	283	.	294	294
	CMHC	3711	15743	19454	4145	18242	22387	4165	18701	22866
	CBC	.	5365	5365	.	4795	4795	.	4795	4795
	CHRC	.	475	475	.	547	547	.	653	653
	CRTC	.	11	11	.	10	10	.	.	.
	E&I-ADM	.	19966	19966	.	16740	16740	.	17315	17315
	E&I-CEIC	.	6875	6875	.	7974	7974	.	7763	7763

(CONTINUED)

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE, DEPARTMENT AND SCIENCE TYPE, 1985-86 TO 1987-88

		YEAR								
		1985-86			1986-87			1987-88		
		SCIENCE TYPE			SCIENCE TYPE			SCIENCE TYPE		
		NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
SOCIAL DEVELOPMENT	ENV-ADM	1074	123	1197	1263	120	1383	1319	210	1529
	ENV-AES	228639	.	228639	260936	.	260936	262393	.	262393
	ENV-C&P	96443	6571	103014	100811	6873	107684	106666	7164	113831
	ENV-PC	7044	7804	14849	7338	8134	15472	7597	8319	15916
	IAND-NA	4388	805	5194	4721	806	5527	4124	738	4862
	JUST-ADM	.	4367	4367	.	5899	5899	.	4450	4450
	JUST-LRC	.	2995	2995	.	3055	3055	.	3109	3109
	MRC	161602	.	161602	168278	.	168278	172055	.	172055
	NFB	1219	.	1219	1123	.	1123	1150	.	1150
	NHW-ADM	.	11056	11056	.	13087	13087	.	12415	12415
	NHW-HP	70378	.	70378	74088	.	74088	82224	.	82224
	NHW-HSS	11562	9536	21098	13458	10593	24051	13673	10828	24501
	NHW-IS	.	1247	1247	.	1730	1730	.	1536	1536
	NHW-MS	2369	1418	3787	2568	1500	4068	2546	1500	4046
	NHW-SS	.	7176	7176	.	7132	7132	.	7310	7310
	NLC	.	42050	42050	.	44533	44533	.	44814	44814
	NMC	35529	61301	96830	38429	72101	110530	42507	85701	128208
	PA	.	20594	20594	.	23498	23498	.	19200	19200
	RCMP	611	.	611	700	.	700	705	.	705
	SECS-ADM	.	550	550	.	952	952	.	941	941
	SECS-CIT	.	3001	3001	.	2980	2980	.	2857	2857
	SECS-ES	6103	2082	8185	4685	1308	5993	.	324	324
	SECS-OL	.	2400	2400	.	2433	2433	.	2594	2594
	SSHRC	.	63663	63663	.	70638	70638	.	68738	68738
	SGEN-ADM	.	13915	13915	.	13764	13764	.	14083	14083
	TOTAL	630672	311360	942032	682545	339727	1022272	701124	346352	1047476
EXTERNAL AFFAIRS & AID	CIDA	45231	6903	52134	48316	6733	55049	62793	7749	70542
	IDRC	40000	41799	81799	44695	46705	91400	47726	49874	97600
	IJC	3330	.	3330	3657	.	3657	3886	.	3886
	TOTAL	88561	48702	137263	96668	53438	150106	114405	57623	172028
DEFENCE	NDEF-SER	210730	3438	214168	220034	3470	223504	243098	3582	246680
	TOTAL	210730	3438	214168	220034	3470	223504	243098	3582	246680
SERVICE TO GOVERNMENT	COL	.	3215	3215	.	3296	3296	.	3332	3332
	ECC	.	9395	9395	.	9605	9605	.	10048	10048
	FIN-FEP	.	16590	16590	.	18745	18745	.	20711	20711
	NCC	514	481	995	554	498	1052	550	529	1079
	NREV-TAX	.	2959	2959	.	2815	2815	.	3084	3084
	PCO	.	70	70	.	90	90	.	90	90
	PW-PTS	4884	.	4884	6280	.	6280	6261	.	6261

(CONTINUED)

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE, DEPARTMENT AND SCIENCE TYPE, 1985-86 TO 1987-88

		YEAR								
		1985-86			1986-87			1987-88		
		SCIENCE TYPE			SCIENCE TYPE			SCIENCE TYPE		
		NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL	NATURAL	HUMAN	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
SERVICE TO GOVERNMENT	STCAN	.	262666	262666	.	349845	349845	.	272333	272333
	TB-ADM	.	21493	21493	.	20963	20963	.	22075	22075
	TOTAL	5399	316868	322266	6834	405857	412690	6811	332201	339012
TOTAL	TOTAL	3177652	763037	3940689	3291656	897095	4188751	3300956	839056	4140013

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE, DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
ECONOMIC & REGIONAL DEVELOPMENT	AGR-ADM	.	6643	6643	.	6593	6593	.	6802	6802
	AGR-FOR	68748	8255	77003	74576	9531	84107	72062	7605	79667
	AGR-CGC	3076	3146	6222	3956	3557	7513	3896	3943	7840
	AGR-DEV	279184	7027	286211	271925	6644	278568	267592	6508	274100
	AGR-RI	14512	12871	27383	13336	10963	24299	9570	12695	22265
	AGR-GO	1788	.	1788	.	.	.	.	.	.
	AECB	2688	39	2727	3605	355	3960	3819	326	4145
	AECL	122797	17295	140092	136480	18852	155332	125386	16500	141886
	CLFB	148	29	177	118	29	147	129	27	156
	CTC	1926	1721	3647	1817	1706	3523	1820	1708	3528
	COMM-CC	68310	9491	77801	58396	7517	65913	43102	7568	50670
	CCA-ADM	2225	1053	3278	2621	860	3480	2533	874	3407
	CCA-CON	.	3347	3347	.	3532	3532	.	4128	4128
	CCA-COR	.	13770	13770	.	14097	14097	.	16518	16518
	EMR-ENER	39604	14167	53771	17714	23601	41315	18680	25765	44445
	EMR-MES	223635	110513	334148	227836	122569	350405	230131	124290	354422
	EA-CIA	.	11838	11838	.	12872	12872	.	13507	13507
	F&O-FM	148441	109108	257549	134237	99415	233652	111479	93918	205397
	LAB	226	6624	6851	102	4302	4404	62	4510	4572
	NEB	.	2269	2269	.	2465	2469	.	2773	2773
	NRC-SIR	378081	18988	397069	408595	55951	464546	394396	54984	449380
	NRC-STI	.	26842	26842	.	.	.	.	.	.
	NSERC	271731	39571	311302	277569	43171	320740	286867	44820	331687
	RIE	197790	5020	202810	215504	5512	221016	224539	5726	230265
	ST	2436	10739	13175	6109	15163	21272	12736	15566	28302
	SC	2312	2325	4637	1604	1453	3057	1628	1386	3014
	SS-SUPP	11747	3442	15189	12082	2114	14196	11232	1972	13204
	TPT-ADM	19781	3553	23335	20775	3023	23797	21078	2822	23900
	TPT-AIR	2230	2516	4746	2751	2299	5050	3682	2155	5837
	TPT-MAR	7255	139	7394	8394	.	8394	6925	.	6925
	TPT-SUR	1462	484	1946	1421	506	1927	1422	552	1974
	TOTAL	1872134	452825	2324959	1901524	478653	2380177	1854769	480048	2334817
SOCIAL DEVELOPMENT	CC	132	140	272	138	145	283	143	151	294
	CMHC	7708	11746	19454	9751	12636	22387	9943	12923	22866
	CBC	.	5365	5365	.	4795	4795	.	4795	4795
	CHRC	.	475	475	.	547	547	.	653	653
	CRTC	11	.	11	10	.	10	.	.	.
	E&I-ADM	1480	18486	19966	.	16740	16740	.	17315	17315

(CONTINUED)

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE, DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
SOCIAL DEVELOPMENT	E&I-CEIC	932	5943	6875	.	7974	7974	.	7763	7763
	ENV-ADM	1046	151	1197	1328	55	1383	1485	34	1519
	ENV-AES	21381	207258	228639	22854	238079	260936	23976	238418	262393
	ENV-C&P	35547	67467	103014	37099	70585	107684	39374	74457	113831
	ENV-PC	1062	13787	14849	1105	14367	15472	1150	14766	15916
	IAND-NA	3558	1635	5194	3558	1970	5527	3242	1620	4862
	JUST-ADM	1421	2946	4367	2289	3610	5899	1899	2551	4450
	JUST-LRC	2144	850	2995	2163	892	3055	2227	882	3109
	MRC	155424	6178	161602	161466	6812	168278	165141	6914	172055
	NFB	746	473	1219	833	290	1123	860	290	1150
	NHW-ADM	.	11056	11056	.	13087	13087	.	12415	12415
	NHW-HP	16651	53727	70378	16474	57614	74088	19350	62874	82224
	NHW-HSS	13518	7580	21098	15148	8903	24051	15426	9075	24501
	NHW-IS	.	1247	1247	.	1730	1730	.	1536	1536
	NHW-MS	443	3344	3787	581	3487	4068	575	3471	4046
	NHW-SS	2309	4867	7176	2251	4880	7132	1574	5736	7310
	NLC	.	42050	42050	.	44533	44533	.	44814	44814
	NMC	10207	86622	96830	11777	98753	110530	14097	114111	128208
	PA	.	20594	20594	.	23498	23498	.	19200	19200
	RCMP	611	.	611	700	.	700	705	.	705
	SECS-ADM	.	550	550	.	952	952	.	941	941
	SECS-CIT	2918	83	3001	2924	56	2980	2857	.	2857
	SECS-ES	7052	1133	8185	5418	575	5993	324	.	324
	SECS-OL	1781	619	2400	1795	638	2433	1915	679	2594
	SSHRC	39095	24568	63663	44670	25968	70638	45183	23555	68738
	SGEN-ADM	11257	2657	13915	11047	2717	13764	11286	2797	14083
	TOTAL	338434	603598	942032	355385	666887	1022272	362741	684735	1047476
EXTERNAL AFFAIRS & AID	CIDA	18226	33909	52134	20006	35043	55049	22334	48208	70542
	IDRC	64857	16942	81799	72471	18929	91400	77387	20213	97600
	IJC	.	3330	3330	.	3657	3657	.	3886	3886
	TOTAL	83083	54181	137263	92477	57629	150106	99721	72307	172028
DEFENCE	NDEF-SER	210399	3769	214168	219570	3934	223504	241977	4702	246680
	TOTAL	210399	3769	214168	219570	3934	223504	241977	4702	246680
SERVICE TO GOVERNMENT	COL	.	3215	3215	.	3296	3296	.	3332	3332
	ECC	8018	1377	9395	9116	1489	9605	8545	1503	10048
	FIN-FEP	.	16590	16590	.	18745	18745	.	20711	20711
	NCC	10	985	995	10	1042	1052	10	1069	1079
	NREV-TAX	175	2784	2959	188	2627	2815	207	2877	3084

(CONTINUED)

TABLE 80

TOTAL FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY BY ENVELOPE, DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE TOTAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
SERVICE TO GOVERNMENT	PCO	70	.	70	90	.	90	90	.	90
	PW-PTS	2763	2120	4884	2561	3719	6280	2523	3739	6261
	STCAN	10903	251763	262666	8746	341099	349845	9611	260721	270333
	TB-ADM	153	21340	21493	158	20805	20963	153	21922	22075
	TOTAL	22092	300174	322266	19870	392822	412692	21139	317874	339012
TOTAL	TOTAL	2526142	1414547	3940689	2588826	1599925	4188751	2580346	1559667	4140013

TABLE 81

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES, BY ENVELOPE, DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
ECONOMIC & REGIONAL DEVELOPMENT	AGR-ADM	.	6643	6643	.	6593	6593	.	6802	6802
	AGR-FOR	68748	8255	77003	74578	9531	84107	72062	7605	79667
	AGR-CGC	3076	3146	6222	3958	3557	7515	3896	3943	7840
	AGR-DEV	279184	3595	282779	271925	3604	275529	267592	3423	271015
	AGR-RI	14512	12871	27383	13336	10963	24299	9570	12695	22265
	AGR-GD	1788	.	1788	.	.	.	.	.	.
	AECB	2688	39	2727	3605	355	3960	3819	326	4145
	AECL	122797	17295	140092	136480	18852	155332	125386	16500	141886
	COMM-CC	58232	8015	76247	58268	6419	64687	42972	6407	49379
	CCA-COR	.	13770	13770	.	14097	14097	.	16618	16618
	EMR-ENER	39504	14157	53771	17714	23601	41315	18680	25765	44445
	EMR-MES	222119	91298	313417	224291	94263	318554	226677	92903	319580
	F&O-FM	148419	100982	249401	134206	92056	226262	111391	86383	197774
	NEB	.	367	367	.	397	397	.	407	407
	NRC-SIR	378081	18988	397069	408595	55951	464546	394396	54984	449380
	NRC-STI	.	26842	26842	.	.	.	.	.	.
	NSERC	271731	39571	311302	277569	43171	320740	286867	44820	331687
	RIE	197790	1427	199217	215504	1520	217024	224539	1580	226119
	ST	2436	2355	4791	6109	2376	8485	12736	3158	15894
	SS-SUPP	11677	3308	14985	12037	1835	13872	11130	1768	12898
	TPT-ADM	19781	3401	23183	20775	2861	23635	21078	2657	23735
	TPT-AIR	2230	2516	4746	2751	2299	5050	3682	2155	5837
	TPT-MAR	7255	139	7394	8394	.	8394	6925	.	6925
	TPT-SUR	816	337	1153	828	354	1182	824	394	1218
	TOTAL	1862964	379327	2242291	1890921	394653	2285575	1844225	391293	2235518
SOCIAL DEVELOPMENT	CMHC	1826	1885	3711	1999	2146	4145	2011	2154	4165
	ENV-ADM	923	151	1074	1208	55	1263	1285	34	1319
	ENV-AES	21381	207258	228639	22858	238079	260936	23976	238418	262393
	ENV-C&P	34182	62261	96443	35679	65132	100811	37902	68765	106666
	ENV-PC	744	6300	7044	774	6564	7338	805	6792	7597
	IAND-NA	3112	1276	4388	3068	1653	4721	2741	1383	4124
	MRC	155424	6178	161602	161466	6812	168278	165141	6914	172055
	NFB	746	473	1219	933	290	1123	860	290	1150
	NHW-HP	15651	53727	70378	16474	57614	74088	19350	62874	82224
	NHW-HSS	7299	4263	11562	8478	4980	13458	8603	5070	13673
	NHW-MS	443	1926	2369	581	1987	2568	575	1971	2546
	NMC	3924	31605	35529	4032	34397	38429	4513	37994	42507
	RCMP	611	.	611	700	.	700	705	.	705

(CONTINUED)

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE NATURAL SCIENCES, BY ENVELOPE, DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
SOCIAL DEVELOPMENT	SECS-ES	4970	1133	6103	4110	575	4685	.	.	.
	TOTAL	252236	378435	630672	262262	420283	682545	268466	432658	701124
EXTERNAL AFFAIRS & AID	CIDA	15432	29799	45231	17148	31108	48316	19201	43592	62793
	IDRC	36666	3334	40000	40969	3726	44695	43747	3979	47726
	IJC	.	3330	3330	.	3657	3657	.	3886	3886
	TOTAL	52098	36463	88561	58117	38552	96668	62948	51457	114405
DEFENCE	NDEF-SER	208796	1934	210730	218023	2011	220034	240390	2708	243098
	TOTAL	208796	1934	210730	218023	2011	220034	240390	2708	243098
SERVICE TO GOVERNMENT	NCC	.	514	514	.	554	554	.	550	550
	PW-PTS	2763	2120	4884	2561	3719	6280	2523	3739	6261
	TOTAL	2763	2634	5398	2561	4273	6834	2523	4289	6811
TOTAL	TOTAL	2378857	798795	3177652	2431884	859772	3291656	2418551	882405	3300956

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL.
ENVELOPE ECONOMIC & REGIONAL DEVELOPMENT.
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	197	4528	514	3976	1552	2563	.	13330
INTRAMURAL RSA	40	919	295	1108	715	344	.	3420
ADMIN. OF EXTRAMURAL PROGRAMS	25	202	270	29	232	10	.	768
TOTAL	257	5648	1078	5113	2499	2916	.	17519

SCIENCE TYPE NATURAL.
ENVELOPE ECONOMIC & REGIONAL DEVELOPMENT.
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	192	4547	519	3942	1562	2458	.	13220
INTRAMURAL RSA	42	896	287	1118	697	331	.	3369
ADMIN. OF EXTRAMURAL PROGRAMS	25	190	286	29	227	9	.	767
TOTAL	259	5633	1092	5087	2487	2798	.	17357

SCIENCE TYPE NATURAL.
ENVELOPE ECONOMIC & REGIONAL DEVELOPMENT.
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	193	4527	489	3972	1511	2282	.	12974
INTRAMURAL RSA	40	873	273	1036	827	294	.	3142
ADMIN. OF EXTRAMURAL PROGRAMS	22	185	284	31	234	9	.	765
TOTAL	255	5585	1046	5039	2372	2584	.	16882

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL.
ENVELOPE SOCIAL DEVELOPMENT.
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	17	527	141	182	157	54	.	1086
INTRAMURAL RSA	106	1174	363	1553	812	174	.	4182
ADMIN. OF EXTRAMURAL PROGRAMS	8	24	42	3	42	.	.	119
TOTAL	131	1725	545	1736	1021	228	.	5387

SCIENCE TYPE NATURAL.
ENVELOPE SOCIAL DEVELOPMENT.
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	17	531	142	180	167	54	.	1090
INTRAMURAL RSA	103	1201	393	1559	787	162	.	4204
ADMIN. OF EXTRAMURAL PROGRAMS	7	27	39	3	42	.	.	118
TOTAL	127	1759	573	1741	936	216	.	5411

SCIENCE TYPE NATURAL.
ENVELOPE SOCIAL DEVELOPMENT.
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	17	553	146	182	168	56	.	1120
INTRAMURAL RSA	101	1223	424	1562	775	157	.	4242
ADMIN. OF EXTRAMURAL PROGRAMS	7	27	41	3	42	.	.	120
TOTAL	125	1803	610	1747	995	213	.	5482

TABLE 82

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL
ENVELOPE EXTERNAL AFFAIRS & AID
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&A	6	11	6	4	20	.	.	47
ADMIN. OF EXTRAMURAL PROGRAMS	3	62	16	4	35	.	.	120
TOTAL	9	73	22	8	55	.	.	167

SCIENCE TYPE NATURAL
ENVELOPE EXTERNAL AFFAIRS & AID
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&A	6	10	5	4	20	.	.	45
ADMIN. OF EXTRAMURAL PROGRAMS	3	70	16	4	41	.	.	133
TOTAL	9	80	21	8	61	.	.	178

SCIENCE TYPE NATURAL
ENVELOPE EXTERNAL AFFAIRS & AID
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&A	6	11	4	4	20	.	.	45
ADMIN. OF EXTRAMURAL PROGRAMS	3	70	16	4	41	.	.	133
TOTAL	9	81	20	8	61	.	.	178

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL.
ENVELOPE DEFENCE.
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	21	547	111	460	241	239	140	1758
INTRAMURAL RSA	.	10	3	1	20	.	.	34
ADMIN. OF EXTRAMURAL PROGRAMS	.	11	3	2	4	.	10	30
TOTAL	21	568	117	463	265	239	150	1822

SCIENCE TYPE NATURAL.
ENVELOPE DEFENCE.
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	24	557	124	449	242	227	147	1769
INTRAMURAL RSA	.	10	3	1	20	.	.	34
ADMIN. OF EXTRAMURAL PROGRAMS	.	11	3	2	4	.	10	30
TOTAL	24	578	130	452	266	227	157	1833

SCIENCE TYPE NATURAL.
ENVELOPE DEFENCE.
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	24	561	124	450	242	229	144	1773
INTRAMURAL RSA	.	10	3	1	20	.	.	34
ADMIN. OF EXTRAMURAL PROGRAMS	.	11	3	2	4	.	10	30
TOTAL	24	582	130	453	266	329	154	1837

TABLE 82

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE NATURAL SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE NATURAL.
ENVELOPE SERVICE TO GOVERNMENT.
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	0	3	.	.	.	.	.	3
INTRAMURAL RSA	0	18	10	10	.	.	.	38
ADMIN. OF EXTRAMURAL PROGRAMS	.	10	.	.	.	.	.	11
TOTAL	0	31	11	10	.	.	.	52

SCIENCE TYPE NATURAL.
ENVELOPE SERVICE TO GOVERNMENT.
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	0	1	.	.	.	.	.	1
INTRAMURAL RSA	0	12	11	11	.	.	.	34
ADMIN. OF EXTRAMURAL PROGRAMS	.	15	1	.	.	.	.	16
TOTAL	0	28	12	11	.	.	.	51

SCIENCE TYPE NATURAL.
ENVELOPE SERVICE TO GOVERNMENT.
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	0	1	.	.	.	.	.	1
INTRAMURAL RSA	0	12	11	11	.	.	.	34
ADMIN. OF EXTRAMURAL PROGRAMS	.	15	1	.	.	.	.	16
TOTAL	0	28	12	11	.	.	.	51

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, BY ENVELOPE, DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
ECONOMIC & REGIONAL DEVELOPMENT	AGR-DEV	.	3432	3432	.	3039	3039	.	3085	3085
	CLFB	148	29	177	118	29	147	129	27	156
	CTC	1926	1721	3647	1817	1706	3523	1820	1708	3528
	COMM-CC	78	1477	1555	128	1098	1226	130	1161	1291
	CCA-ADM	2225	1053	3278	2621	860	3480	2533	874	3407
	CCA-CON	.	3347	3347	.	3532	3532	.	4128	4128
	EMR-MES	1516	19215	20731	3545	28306	31851	3454	31387	34841
	EA-CIA	.	11838	11838	.	12872	12872	.	13507	13507
	F&O-FM	20	8126	8148	31	7358	7390	88	7535	7622
	LAB	226	6624	6851	102	4302	4404	62	4510	4572
	NEB	.	1902	1902	.	2073	2073	.	2366	2366
	RIE	.	3593	3593	.	3992	3992	.	4146	4146
	ST	.	8384	8384	.	12787	12787	.	12408	12408
	SC	2312	2325	4637	1604	1453	3057	1628	1386	3014
	SS-SUPP	70	134	204	45	279	324	102	204	306
	TPT-ADM	.	152	152	.	162	162	.	165	165
	TPT-SUR	647	146	793	592	153	745	598	158	756
	TOTAL	9170	73498	82668	10603	84000	94603	10544	88754	99299
SOCIAL DEVELOPMENT	CC	132	140	272	138	145	283	143	151	294
	CMHC	5882	9861	15743	7752	10490	18242	7932	10769	18701
	CBC	.	5365	5365	.	4795	4795	.	4795	4795
	CHRC	.	475	475	.	547	547	.	653	653
	CRTC	11	.	11	10	.	10	.	.	.
	E&I-ADM	1480	18486	19966	.	16740	16740	.	17315	17315
	E&I-CEIC	932	5943	6875	.	7974	7974	.	7763	7763
	ENV-ADM	123	.	123	120	.	120	210	.	210
	ENV-C&P	1365	5205	6571	1420	5453	6873	1472	5692	7164
	ENV-PC	318	7486	7804	331	7803	8134	345	7974	8319
	IAND-NA	445	360	805	490	316	806	501	237	738
	JUST-ADM	1421	2946	4367	2289	3610	5899	1899	2551	4450
	JUST-LRC	2144	850	2995	2163	892	3055	2227	882	3109
	NHW-ADM	.	11056	11056	.	13087	13087	.	12415	12415
	NHW-HSS	6219	3317	9536	6670	3923	10593	6822	4006	10828
	NHW-IS	.	1247	1247	.	1730	1730	.	1536	1536
	NHW-MS	.	1418	1418	.	1500	1500	.	1500	1500
	NHW-SS	2309	4867	7176	2251	4880	7132	1574	5736	7310
	NLC	.	42050	42050	.	44533	44533	.	44814	44814
	NMC	6283	55018	61301	7745	64356	72101	9584	76117	85701

(CONTINUED)

FEDERAL EXPENDITURES ON SCIENCE AND TECHNOLOGY IN THE HUMAN SCIENCES, BY ENVELOPE, DEPARTMENT AND R&D/RSA ACTIVITY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN

		YEAR								
		1985-86			1986-87			1987-88		
		ACTIVITY			ACTIVITY			ACTIVITY		
		R&D	RSA	TOTAL	R&D	RSA	TOTAL	R&D	RSA	TOTAL
		$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000	$ .000
ENVELOPE	PROGRAM									
SOCIAL DEVELOPMENT	PS	.	20594	20594	.	23498	23498	.	19200	19200
	SECS-ADM	.	550	550	.	950	950	.	941	941
	SECS-CIT	2918	83	3001	2924	56	2980	2857	.	2857
	SECS-ES	2082	.	2082	1308	.	1308	324	.	324
	SECS-OL	1781	619	2400	1795	638	2433	1915	679	2594
	SSHRC	39095	24568	63663	44670	25968	70638	45183	23555	68738
	SGEN-ADM	11257	2657	13915	11047	2717	13764	11286	2797	14083
	TOTAL	86198	225162	311360	93123	246604	339727	94275	252077	346352
EXTERNAL AFFAIRS & AID	CIDA	2794	4109	6903	2858	3875	6733	3133	4616	7749
	IDRC	28191	13608	41799	31502	15203	46705	33640	16234	49874
	TOTAL	30985	17717	48702	34360	19078	53438	36773	20850	57623
DEFENCE	NDEF-SER	1603	1835	3438	1547	1923	3470	1588	1994	3582
	TOTAL	1603	1835	3438	1547	1923	3470	1588	1994	3582
SERVICE TO GOVERNMENT	COL	.	3215	3215	.	3296	3296	.	3332	3332
	ECC	8018	1377	9395	8116	1489	9605	8545	1503	10048
	FIN-FEP	.	16590	16590	.	18745	18745	.	20711	20711
	NCC	10	471	481	10	488	498	10	519	529
	NREV-TAX	175	2784	2959	188	2627	2815	207	2877	3084
	PCO	70	.	70	90	.	90	90	.	90
	STCAN	10903	251763	262666	9746	341099	349845	9611	262721	272333
	TB-ADM	153	21340	21493	158	20805	20963	153	21922	22075
	TOTAL	19329	297540	316868	17308	388549	405857	18616	313585	332201
TOTAL	TOTAL	147285	615752	763037	155942	740154	897095	161795	677261	839056

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN.
ENVELOPE ECONOMIC & REGIONAL DEVELOPMENT.
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITARY	TOTAL
	PY'S	PY'S	PY S	PY S	PY S	PY S	PY S	PY'S
ACTIVITY								
INTRAMURAL R&D	10	61	9	7	13	.	.	99
INTRAMURAL RSA	76	331	142	116	183	3	.	859
ADMIN. OF EXTRAMURAL PROGRAMS	1	6	15	0	6	.	.	28
TOTAL	85	397	166	124	207	3	.	987

SCIENCE TYPE HUMAN.
ENVELOPE ECONOMIC & REGIONAL DEVELOPMENT.
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITARY	TOTAL
	PY S	PY'S	PY'S	PY S	PY S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	9	53	5	6	11	.	.	84
INTRAMURAL RSA	83	296	142	94	190	3	.	810
ADMIN. OF EXTRAMURAL PROGRAMS	1	6	9	.	4	.	.	20
TOTAL	93	355	156	100	208	3	.	914

SCIENCE TYPE HUMAN.
ENVELOPE ECONOMIC & REGIONAL DEVELOPMENT.
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY S	PY S	PY S	PY'S
ACTIVITY								
INTRAMURAL R&D	9	53	5	6	11	.	.	84
INTRAMURAL RSA	84	292	135	99	195	3	.	809
ADMIN. OF EXTRAMURAL PROGRAMS	1	5	9	.	4	.	.	20
TOTAL	94	350	149	105	210	3	.	913

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN.
ENVELOPE SOCIAL DEVELOPMENT.
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	13	142	47	17	34	.	.	253
INTRAMURAL R&A	81	785	274	483	561	124	.	2408
ADMIN. OF EXTRAMURAL PROGRAMS	18	60	68	2	90	.	.	238
TOTAL	112	988	389	502	786	124	.	2900

SCIENCE TYPE HUMAN.
ENVELOPE SOCIAL DEVELOPMENT.
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	10	119	45	11	34	.	.	219
INTRAMURAL R&A	76	825	273	525	640	122	.	2460
ADMIN. OF EXTRAMURAL PROGRAMS	14	57	68	2	65	.	.	227
TOTAL	100	1001	386	538	760	122	.	2908

SCIENCE TYPE HUMAN.
ENVELOPE SOCIAL DEVELOPMENT.
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	10	149	45	10	24	.	.	239
INTRAMURAL R&A	78	803	292	522	639	117	.	2451
ADMIN. OF EXTRAMURAL PROGRAMS	16	56	65	2	82	.	.	221
TOTAL	104	1008	402	534	745	117	.	2910

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN.
ENVELOPE EXTERNAL AFFAIRS & AID.
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&A	.	3	13	45	23	.	.	84
ADMIN. OF EXTRAMURAL PROGRAMS	5	55	32	6	40	.	.	138
TOTAL	5	58	45	51	63	.	.	222

SCIENCE TYPE HUMAN.
ENVELOPE EXTERNAL AFFAIRS & AID.
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&A	.	3	13	45	23	.	.	84
ADMIN. OF EXTRAMURAL PROGRAMS	6	60	32	6	46	.	.	149
TOTAL	6	63	45	51	69	.	.	233

SCIENCE TYPE HUMAN.
ENVELOPE EXTERNAL AFFAIRS & AID.
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&A	.	3	13	45	23	.	.	84
ADMIN. OF EXTRAMURAL PROGRAMS	6	60	32	6	46	.	.	149
TOTAL	6	63	45	51	69	.	.	233

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN.
ENVELOPE DEFENCE.
AND YEAR 1985-86

	CATEGOR.							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITAR.	TOTAL
	P. S	P. S	P. S	P. S	P. S	P. S	P. S	P. S
ACTIVITY								
INTRAMURAL R&D	.	.	4	.	6	.	20	30
INTRAMURAL RSA	.	16	2	.	8	.	12	38
ADMIN. OF EXTRAMURAL PROGRAMS	.	.	.	.	.	.	.	.
TOTAL	.	17	6	.	14	.	32	69

SCIENCE TYPE HUMAN.
ENVELOPE DEFENCE.
AND YEAR 1986-87

	CATEGOR.							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITAR.	TOTAL
	P. S	P. S	P. S	P. S	P. S	P. S	P. S	P. S
ACTIVITY								
INTRAMURAL R&D	.	.	4	.	6	.	20	30
INTRAMURAL RSA	.	16	2	.	8	.	12	38
ADMIN. OF EXTRAMURAL PROGRAMS	.	1	.	.	.	.	.	1
TOTAL	.	17	6	.	14	.	32	69

SCIENCE TYPE HUMAN.
ENVELOPE DEFENCE.
AND YEAR 1987-88

	CATEGOR.							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN S	MILITAR.	TOTAL
	P. S	P. S	P. S	P. S	P. S	P. S	P. S	P. S
ACTIVITY								
INTRAMURAL R&D	.	.	4	.	7	.	20	31
INTRAMURAL RSA	.	16	2	.	8	.	12	38
ADMIN. OF EXTRAMURAL PROGRAMS	.	1	.	.	.	.	.	1
TOTAL	.	17	6	.	15	.	32	70

FEDERAL PERSONNEL ENGAGED IN SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES IN THE HUMAN SCIENCES, BY ENVELOPE, ACTIVITY AND CATEGORY, 1985-86 TO 1987-88

SCIENCE TYPE HUMAN.
ENVELOPE SERVICE TO GOVERNMENT.
AND YEAR 1985-86

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	15	143	29	25	67	.	.	279
INTRAMURAL RSA	157	935	1104	815	1986	48	.	5044
TOTAL	172	1078	1127	840	2053	48	.	5317

SCIENCE TYPE HUMAN.
ENVELOPE SERVICE TO GOVERNMENT.
AND YEAR 1986-87

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	11	115	25	22	50	.	.	223
INTRAMURAL RSA	187	1011	984	877	1876	34	.	4969
TOTAL	198	1126	1009	899	1926	34	.	5192

SCIENCE TYPE HUMAN.
ENVELOPE SERVICE TO GOVERNMENT.
AND YEAR 1987-88

	CATEGORY							
	EXECUTIVE	SCIENTIFIC AND PROFESS.	ADMIN. AND FOREIGN SERVICE	TECHNICAL	ADMIN. SUPPORT	OPERN'S	MILITARY	TOTAL
	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S	PY'S
ACTIVITY								
INTRAMURAL R&D	11	109	29	24	43	.	.	216
INTRAMURAL RSA	179	1039	970	890	1717	25	.	4820
TOTAL	190	1148	998	914	1760	25	.	5035

APPENDIX

I SCOPE AND LIMITATONS OF THE DATA

The expenditure data for scientific activities controlled by federal departments and agencies provided in this document correspond to the budgetary expenditures by program presented in Main Estimates for the approval of Parliament. As a consequence, the following kinds of costs or expenditures are not included:

a) expenditures by federal agencies which do not receive budgetary appropriations, e.g., Petrocan, Canadian National Railways, Air Canada.

b) non-budgetary expenditures for advances, loans, etc.

II DEFINITIONS

Federal departments and agencies in receipt of budgetary appropriations are requested to identify those resources reported in Main Estimates.

In the text which follows, the two major fields of science, the natural sciences and the human sciences, and the two kinds of S&T activities scientific research and experimental development and related scientific activities are described, followed by a description of intramural and extramural performance of S&T activities, definitions of the performance sectors and a discussion of the funding mechanisms for extramural performance. Detailed definitions of research and experimental development and of the various related scientific activities for the natural sciences and for the human sciences are then provided and the Appendix closes with the definitions concerning personnel resources.

The definitions used in collecting the data for this report are essentially the same as those used by the OECD in its "Frascati Manual" and by UNESCO in its "Manual for Statistics on Scientific and Technological Activities".

A. NATURAL AND HUMAN SCIENCES

With respect to the two major S&T fields, the term, natural sciences, embraces the disciplines of study concerned with understanding, exploring, developing or utilizing the natural world. Included are the engineering, mathematical, life and physical sciences. The term, human sciences, is to be regarded as synonymous with social sciences and humanities and thus embraces all disciplines involved in studying human actions and conditions and the social, economic and institutional mechanisms affecting humans. Included are such disciplines as anthropology, demography, economics, geography, history, languages, literature and linguistics, law, library science, philosophy, political science, psychology, religious studies, social work, sociology, and urban and regional studies.

In some situations it may be difficult to decide whether an activity falls in the natural or in the human sciences. Nevertheless, an assignment must be made, and respondents are asked to consider the dominant orientation of the work and the nature of the expertise of the personnel involved.

B. SCIENTIFIC AND TECHNOLOGICAL ACTIVITIES

There are two main categories of scientific and technological activities (S&T):

i) Scientific research and experimental development (R&D), which is defined as creative work undertaken on a systematic basis in order to increase the stock of knowledge, including the knowledge of man, culture and society, and the use of the stock of knowledge to devise new applications.

ii) Related scientific activities (RSA), which are defined as those activities which complement and extend R&D by contributing to the generation, dissemination and application of scientific and technological knowledge. The kinds of related scientific activities for the two main fields of science are enumerated below and more fully described later:

Natural Sciences	Human Sciences
Scientific data collection	General purpose data collection
Scientific information services	Scientific information services
Feasibility studies	Economic and feasibility studies
Testing and standardization	Operations and policy studies
Education support	Education support
Museum services	Museum services

C. INTRAMURAL AND EXTRAMURAL PERFORMANCE

Where the S&T activities are managed and carried out primarily by federal government they are classified as intramural S&T. Even where major components of the project are provided by outside agencies, such as computer services, analytical services, provision of ship and airplane services, construction of laboratory, test or prototype equipment, if the planning, supervision, reporting, etc., are directly controlled by in-house personnel, then the activity is considered to be intramural. This also applies to S&T activities carried out by a department or agency on behalf of another federal department or agency on a cost recovery basis.

On the other hand if the management and conduct of an S&T activity is entrusted to a non-federal organization it is classified as being extramurally performed. The six extramural performance sectors used in surveying S&T expenditures by the federal government are: Canadian industry, Canadian universities, Canadian non-profit institutions, provincial and municipal governments, foreign performers, and other performers.

Intramural performance includes:

- scientific activities carried out by personnel of units assigned to the programs;

- the acquisition of land, buildings, machinery and equipment for scientific activities:

- the administration of scientific activities by program employees;

- the purchase of support services such as EDP and travel.

The intramural expenditures reported for scientific activities are those direct costs associated with scientific programs.

These costs include that portion of a program's contribution to employee benefit plans (e.g., superannuation) which is applicable to the scientific manpower within the program. Non-program ("indirect") costs, such as the value of services provided by other departments without charge and accommodation provided by the reporting program are included.

Canadian industry - business and government enterprises including public utilities and government-owned firms. Industrial research institutes located at Canadian universities are considered to be in the university sector.

Canadian universities - including affiliated institutes owned administered or staffed by universities.

Canadian non-profit institutions - charitable foundations, voluntary health organizations, scientific and professional societies, and other organizations not established to earn profits. Non-profit institutions primarily serving or controlled by another sector should be included in that sector (e.g. the Pulp and Paper Research Institute is in Canadian Industry).

Canadian provincial and municipal governments - departments and agencies of these governments. Government enterprises, such as provincial utilities are included in the Canadian industry sector, and hospitals in the Canadian non-profit institutions sector.

Foreign performers - all foreign governments, foreign companies (including foreign subsidiaries of Canadian firms), international organizations, non-resident foreign nationals and Canadians studying or teaching abroad.

Other performers - individuals or organizations not belonging to any of the above sectors. This includes provincial research councils and organizations.

D. CONTRACTS, GRANTS AND CONTRIBUTIONS

The federal government uses three methods of funding extramurally-performed S&T activities:

i) A contract is a legal agreement between two or more parties which will usually specify the nature and general objective of the S&T activity to be performed and the provision of the corresponding results according to an agreed schedule and cost.

ii) A grant is an unconditional payment to a recipient and the government does

not necessarily receive any services (information, goods, etc.) as a direct result. It is to be noted, however, that there may be eligibility conditions which prospective recipients must meet.

iii) A contribution requires an agreement between the government and recipient specifying the terms and conditions under which funds will be paid to the recipient. In particular the payments are conditional on performance or achievement and the recipient's use of the funds provided is subject to audit.

In this report the term grants is used for both grants and contributions and data according to the method of funding extramural performance is collected only for R&D activities.

E. DEFINITIONS FOR THE NATURAL SCIENCES

Research and experimental development (R&D) - creative work undertaken on a systematic basis to increase the stock of scientific and technical knowledge or to discover new applications for existing knowledge. The central characteristic of R&D is an appreciable element of novelty and of uncertainty. The work is normally performed by, or under the supervision of, persons with postgraduate degrees in the natural sciences or engineering.

R&D is generally carried out by specialized R&D units. An R&D project however, may also involve the use of non-R&D facilities (e.g. testing grounds), the purchase or construction of specialized equipment and materials, and the assistance of other units. Costs of such items, attributable to the project, are considered R&D costs.

R&D units may also be engaged in non-R&D activities such as technical advisory services, testing, and construction of special equipment for other units. So far as is practical, the effort devoted to such operations is excluded from R&D.

On the other hand, R&D may be carried out by units normally engaged in other functions (e.g. a marine survey ship used for hydrological research, a geological survey team may be directed to work in a certain area in order to provide data for a geophysical research project). Such effort is part of an R&D project and again, so far as is practical, the costs are assigned to R&D expenditures.

Examples:

1. Routine autopsy on the causes of death is not research, but special investigation of a particular mortality in order to establish the side effects of certain treatments is research. Similarly, routine tests, such as blood and bacteriological tests, are not research, but a special program of blood tests in connection with the introduction of a new drug is applied research.

2. The keeping of daily records of temperature or of atmospheric pressure is data collection and not research. The investigation of new methods of measuring temperature is research as is the study and development of new systems and techniques for interpreting the data.

Research fellowships - awards to individuals for advances in research training and experience. Such payments are included as expenditures for R&D activities. Awards intended primarily to support the education of the recipients are reported as education support.

Scientific data collection - the gathering, processing, collating and analyzing of data on natural phenomena. These data are normally the results of surveys, routine laboratory analyses or compilations of operating records.

Data collected as part of an existing or proposed research project are costed against research. Similarly the costs of analyzing existing data as part of a research project are R&D costs, even when the data were originally collected for some other purpose. The development of new techniques for data collection is also considered a research activity.

Examples of scientific data collection are routine geological, hydrographic, oceanographic and topographic surveys; routine astronomical observations; maintenance of meteorological records; and wildlife and fisheries surveys.

Scientific information services - all work directed to recording, classifying, and disseminating scientific and technological information. Included are the operations of scientific and technical libraries, S&T information and advisory services, the Patent Office, the publication of scientific journals and bibliographies, and the organizing of scientific conferences. Grants for the publication of scholarly works are also included.

General purpose information services or information services directed primarily towards the general public are excluded, as are teaching activities.

Testing and standardization - work directed towards the establishment of national and international standards for materials, devices, products and processes, the calibration of secondary standards, and non-routine quality testing. The developemnt of new measures for standards, or of new methods of measuring or testing, is R&D and is reported as such. Excluded is routine testing such as monitoring radioactivity levels or soil tests before construction.

Feasibility studies - technical investigations of proposed innovative engineering projects to provide necessary additional information for decisions on implementation. Excluded is routine work such as selection of road routes and bridge sites unless there are conditions which impose innovative solutions.

Educational support - grants to individuals or institutions intended to support the post-secondary education of students in technology and the natural sciences. The activity includes the support of foreign students in their studies of S&T at Canadian or foreign institutions. General purpose grants to educational institutions are excluded. Grants intended primarily to support the research of individuals at universities are either R&D grants or research fellowships.

Museum services - the collecting, cataloguing, and displaying of specimens of the natural world or of representations of natural phenomena. The scientific activities of natural history museums, zoological and botanical gardens, aquaria, planetaria and nature reserves are included.

The activity represents a systematic attempt to preserve and display items from the natural world; in some ways it could be considered an extension of scientific information services. Parks which are not primarily restricted reserves for certain fauna or flora are excluded.

Where practical, efforts of such institutions devoted to R&D or to other activities such as S&T information are excluded from museum services and assigned to those activities. The costs of providing entertainment and recreation to visitors are excluded (e.g. restaurants, children's gardens and nurseries).

Administration of extramural programs - the costs of identifiable units engaged in the administration of contracts and grants and contributions for scientific activities that are to be performed outside the federal government. These expenditures are broken down by the type of scientific activity supported, i.e., R&D or RSA.

F. DEFINITIONS FOR THE HUMAN SCIENCES

Research and experimental development (R&D) - creative work undertaken on a systematic basis towards the acquisition of new knowledge about man, his actions and his institutions, and the application of this knowledge in new ways.

R&D requires the acquisition of knowledge and not just information. New knowledge involves the integration of newly acquired information into existing hypotheses, the formulation and testing of new hypotheses or the re-evaluation of existing observations.

An R&D project generally has three characteristics:

- a substantial element of uncertainty, novelty and innovation;
- a well-defined project design;
- a report on the procedures and results of the project.

Examples:

1. Investigation of the factors determining regional variations in economic growth.
2. Studies of the effects of an urban development scheme on family group cohesiveness.
3. Investigation of variables affecting the educational performance of children drawn from different social and ethnic groups.
4. Development of reward systems which take into account the differing motives, attitudes and perceptions of management and workers.

Both "research" and "development" are often used with different meanings in the government. For example, it is increasingly common to hear that a person is "researching" something (i.e. the person is looking for information about something). Similarly, there are many units with either research or development or both terms in their titles which are concerned primarily with information gathering, speech writing, preparation of position papers or departmental organization. These are excluded from the scientific activity of R&D.

Research fellowships - awards to individuals for advanced research training and experience. Such payments are included as expenditures for R&D activities. Awards intended primarily to support the education of the recipients are reported as education support.

General purpose data collection - the routine gathering, processing, collating, analysis and publication of information on human phenomena using surveys, regular and special investigations and compilations of existing records. It excludes data collected primarily for internal administrative purposes (e.g. departmental personnel statistics) as well as the collection of data as part of an R&D project.

Data collected as part of an existing or proposed research project are costed against research. Similarly the costs of analyzing existing data as part of a research project are R&D costs, even when the data were originally collected for some other purpose. The development of new techniques for data collection is also considered a research activity.

Examples of general purpose data collection are the quinquennial censuses, and surveys of employment and production.

Scientific information services - the recording, classifying and disseminating activities of units concerned primarily with providing information for scientific activities in the social sciences and humanities.

Included are the operations of specialized libraries or national archives, the publication of scholarly journals and bibliographies, grants for the publication of scholarly works and the support of scientific and academic conferences.

General purpose information services or information services directed primarily towards the general public are excluded, as are teaching activities.

Economic and feasibility studies - investigations of the socio-economic characteristics and implications of specific situations. Such studies are generally limited to a specific problem and involve the application of established social science techniques and methodologies. Examples are a study of the viability of an iron foundry in a foreign country, or cost-benefit study of a proposed paper manufacturing centre in Manitoba.

Operations and policy studies - the analysis and assessment of departmental programs, policies and operations, the activities of units concerned with the continuing analysis and monitoring of external phenomena (e.g. foreign economic statistics, defence and security information) as well as studies to provide an information base for policy development. The work is carried out by specialized units in some government departments, by consultants, by royal commissions and by task forces.

Education support - grants to individuals or institutions intended to support the post-secondary education of students in the social sciences and humanities. General purpose grants to educational institutions are excluded. The activity includes the support of foreign students in their studies of the social sciences at Canadian or foreign institutions.

Grants intended primarily to support the research of individuals at universities are either R&D grants or research fellowships.

Museum services - the collecting, cataloguing and displaying of specimens and representations relating to the history, social organization and creative efforts of man.

The activity represents a systematic attempt to preserve and display the works of man and to provide information on his works, history, and nature. The scientific activities of historical museums, archeological displays, and art galleries are included.

The costs of providing entertainment and recreation to visitors are excluded (e.g. restaurants, children's gardens and museums).

Administration of extramural programs - the costs of identifiable units engaged in the administration of contracts and grants and contributions for scientific activities that are to be performed outside the federal government. These expenditures are broken down by the type of scientific activity supported, i.e., R&D or RSA.

G. PERSONNEL RESOURCES

Data are also collected on the personnel resources devoted to or in support of intramurally-performed S&T activities. These resources included both scientific and technical personnel directly engaged in the S&T activities, such as scientific and engineering staff, technical staff, operational staff (e.g., field hands in agricultural research), and auxiliary staff such as secretaries, typists, administrative and financial staff. In regard to auxiliary staff there are two caveats:

i) where the S&T activities are a part of the program being reported, only the auxiliary staff relevant to the S&T activities are reported on a pro rata basis;

ii) whenever financial and administrative support is provided from another program, that support is not allocated to the S&T resources for the program being reported.

Personnel resources are reported on an equivalent full-time basis. The unit used is person-years. Thus an employee working half-time on S&T activities is reported as 0.5 person years.

Information on personnel appearing in this report is presented under the six categories identified in the general classification system that applies to most public service positions:

1. Executive: refers only to the senior executive group. It is composed of positions, the incumbents of which are responsible for managing an agency and for providing advice on the development and conduct of government programs.

2. Scientific & Professional: groups engaged in the application of a comprehensive body of knowledge acquired through university graduation or groups in which membership in Canada is generally controlled by legal licensing bodies.

3. Administrative & Foreign Service: groups engaged in the planning, execution, conduct and control of programs serving the public interest, relations between Canada and other countries and the requirements of internal management in the Public Service of Canada.

4. Technical: groups engaged in the conduct of analytical, experimental and investigative duties in all the sciences and the performance of similar technical duties in which the requisite knowledge and skills are normally acquired through completion of secondary school education and specialized training.

5. Administrative Support: groups such as clerical and regulatory; communications; data processing; office equipment operation; secretarial, stenographic, typing, and telephone operation.

6. Operational: groups engaged in the performance of a craft or of unskilled work. It refers to groups such as correctional, general services, postal operations, and printing operations.

7. Military Personnel: members of the Canadian Forces engaged in scientific activities.

H. NON-PROGRAM COSTS

Services provided by other departments, accommodation costs, the portion of administration costs attributable to scientific activities where a seperate administration program exists.